The New York Medical Times.

VOL. XII. NEW YORK, AUGUST, 1884. No. 5.

ORIGINAL ARTICLES.

APPLICATION OF "NEW REMEDIES" IN THE TREATMENT OF MENTAL AND NERVOUS DISEASES.

BY SELDEN H. TALCOTT, M.D., MIDDLETOWN, N. Y.

PROLOGUE.

Insanity is a result of diseases of the brain, and is characterized by disturbances of and departures from normal mental action. Those diseases which produce insanity may be either organic or functional. They may be inherent to the cerebral mass, or they may have traveled thither from the seat of a primary disease located in some other organ of the human system. To discover the first causes of any given brain disturbance is a step toward the proper treatment of insanity. The causes having been discovered, the next step is to take proper and active measures for their removal. In prosecuting this work we have had occasion to summon to our assistance the forces which are stored up in the "new remedies" of our materia medica. These have, in many instances, ably supplemented the powers of those drugs which were originally proved and used by the illustrious Hahnemann. From our experiences we are enabled to note, in brief, the range of action and the characteristic symptoms of the following

NEW REMEDIES.

Æsculus Hippocastanum, the horse chestnut, is a remedy which, as you all know, produces effects upon the portal system, and upon the spinal cord. Cramp-like and constrictive pains in the bowels, hard and scanty stools, congestions of the hemorrhoidal veins, sticking pains in the rectum, and general abdominal and pelvic distresses, are the physical characteristics of this drug.

Here we have most naturally a patient whose mental condition is that of a person who is cross, sad, snarling, disinclined to work, and who looks persistently upon the dark side of everything.

In this condition, which may be termed "physical melancholia," developing, as it does, the train of symptoms we have enumerated, you will find æsculus a drug of practical and intrinsic value.

Ailanthus Glandulosa wreaks its vengeance upon the cerebro-spinal system, upon the mucous tracts, and upon the skin. There is likewise blood degeneration, and therefore we have fever, delirium, general prostration, discharges from the nose and throat, difficult respiration and rapid loss of strength. Mentally there is either intense anxiety or profound apathy. There is a strong tendency to drowsiness, dullness, depression of spirits, loss of memory, incoherence of ideas, and finally a stoical indifference to everything that happens. In melancholia following exhausting disease, with a rapid tendency to dementia, with purplish-blueness of the skin, with great loss of appetite, and a wild, yet expressionless stare of the eyes, ailanthus is abundantly indicated.

Aletris Farinosa is a medicine which has its place midway between china and helonias. In mild melancholia, which we find in some women who have suffered from protracted illness, from loss of fluids, and from an inability to recuperate because digestion and assimilation are impaired, with atony of the uterus, and exhaustion of the stomach, we have given aletris with good results.

Anatherum Muricatum is a drug whose symptoms, as given by an enthusiastic prover,* cover a wide range of physical disorders. This drug presents the cerebral congestion of belladonna, the ungovernable jealousy of hyoscyamus, the general soreness and vindictive humor of nux vom., and the agitation and anxiety of veratrum viride; and yet it differs in its action from all these medicines. Its best sphere of action lies, perhaps, between the erethism of chamomilla and the prostration of china. The patient has inexpressible sufferings which incline her to seek solitude and to mourn over her misfortunes, and to cherish suicidal ideas. There is much vertigo, with neuralgic pains through the temples; also a pressure on top of the head with a sensation of being crushed.

The Iodide of Arsenic is valuable in melancholia with restlessness following the suppression of skin diseases; also in the mental depression which sometimes ensues in the course of a chronic diarrhœa, with long-continued and distressing abdominal pains.

Atropine, the alkaloid of belladonna, is simply belladonna itself with a keener edge, but a shorter blade. Atropine is indicated where belladonna seems called for with this variation. There is less of inflammation and more of nervous excitement than in the true belladonna case. The indication is one of degree, with the same general mental and physical symptoms.

Badiaga, the fresh-water sponge, from the physical symptoms, such as severe headache on top of the

* Houat.

head and over the frontal portions of the brain, together with sensations of dizziness, soreness throughout the muscles of the body, weakness and clumsiness of the limbs, and, mentally, a feeling that his mind is more clear and more inclined to activity than ordinarily it is, should be an excellent alleviating remedy for that fatal disease—general paresis. We have made but recent experiments with this drug, and therefore cannot speak positively of its possible virtues in paresis.

Baptisia Tinctoria is one of the most important of the new remedies, in the treatment of mental and nervous diseases. It acts upon the blood, the nervous system, the mucous membranes, and upon the sympathetic nervous system. Its value as a fever remedy is well understood. Its value as a brain remedy is not half known. From the loud delirium of acute mania to the abject silence of melancholia with stupor, it works with a master-hand. It may be used with exceeding benefit in all cases where there is rapid and profound physical degeneration, simulating the typhoid state, and where the patient is wild, restless, anxious, hurried, and striving to overcome what he believes to be his own physical solution of continuity, or, in other words, where he "cannot get himself together."

Again, the baptisia patient sinks into a mental condition where there is indisposition or inability to carry on any mental operations whatever. The patient appears sad, unhappy, and in the depths of despair. In many cases of puerperal mania, of acute mania, and acute melancholia, following excessive toil, worry, or shock, patients may be greatly relieved and sometimes cured by the use of baptisia tinctoria. *Blood rot*, if such a term may be used, is a characteristic of baptisia.

Kali Bromidum has figured quite extensively as a brain remedy. Its misuse has brought many invalids to lunatic asylums. It produces most positive cerebral anæmia, and it disturbs and disorders the entire nervous system, producing great debility, loss of sensibility, slow, weak pulse and cold extremities, together with loss of memory and difficulty of collecting ideas, gloomy thoughts, and profound depression of all the mental faculties. It is of service in the treatment of incipient melancholias, where the patients are considerably prostrated in body, and where they feel as if they were about to lose the use of their minds. It is a remedy which should be used sparingly in decimal triturations if its best effects would be secured. It overcomes, sometimes, the excessive sexual desires which crop out in puerperal manias; it likewise modifies the attacks of well-established epilepsy.

Cactus Grandiflorus is valuable and effective in mental depression, following those acute diseases of the heart which result from active inflammation or from shock. There is intense fear of death, uncontrollable sadness, with marked palpitation of the heart, coupled with a sense of palpitation in the top of the head.

Cannabis Indica is a drug which acts upon the brain, stimulating the intellectual faculties and enhancing the powers of imagination. The patient alternates between the depths of anguish and despair and the heights of excessive joy. He has hallucinations of sight, and is frightened by spectral apparitions of a terrifying character. Again, he has hallucinations of hearing, when his ears are filled with music most delightful and entrancing. Physically, the patient experiences violent shocks, which pass through his brain and radiate throughout the nervous system. He has dull, heavy, throbbing pains through the head, as if he had received a blow; the eyes are injected; there is ringing and buzzing in the ears; the face has a besotted appearance, and the patient looks and acts like a person given over to excess, both in wine and in venery. The action of the kidneys and bladder is disturbed by cannabis ind. Sometimes there is a passage of profuse colorless urine; at other times a difficulty, in passing even a few drops, is experienced.

This remedy is applicable in physical melancholia, in alcoholic dementia, and it has been recommended for epilepsy.

Carbolic Acid is of service, occasionally, in those conditions which present themselves in patients suffering with dementia paralytica; also in insanity complicated with other bodily diseases. There is general soreness in the abdomen and chest, a condition of prostration, a puffy appearance of the face, an exhalation of fetor from the lungs and from the skin, and likewise great dullness of intellect, disinclination to study or work, and a manifestation of distaste and loss of temper when friends attempt to bestow affection upon him.

Caulophyllum Thalictroides is often useful in melancholia of women, where there are displacements, congestions, and other affections of the uterus, coupled with a tendency to vertigo, with dull, heavy, rheumatic and neuralgic headaches, dependent upon uterine disorders or spinal irritation. The mental depression simulates that of pulsatilla, but is less changeable, more steady and unyielding.

Chelidonium Majus finds its sphere of action among those cases which suffer from acute congestions of the liver, inactivity of the abdominal organs, and a consequent prostration, exhaustion, languor, and both inability and dislike for mental occupation. The patient is sallow in appearance, restless and unable to keep still, and yet unwilling to do anything of a useful nature.

Cimicifuga Racemosa rises to great dignity and usefulness as a remedy for disorders of the nervous system and depression of the mind. Dr. Dunham says, most truthfully, that "the patient has a sensation as if a heavy black cloud had settled all over her and enveloped her head, so that all was darkness and confusion, while at the same time it weighed like lead upon her heart." Such patients are troubled with intense pains in the head, such pains as naturally spring from rheumatic and neuralgic sources, or, in the female, from disturbance of the menstrual function. The pain is apt to locate itself over the eyes. It also extends through the eyes along the base of the brain to the occiput, and radiates over the muscles of the neck and shoulders. From the primary gloom, the cimicifuga patient sometimes passes into a condition of excitement with excessive loquacity, and with hallucinations of sight, when rats, sheep and other animals appear. It is therefore a valuable remedy for profound melancholia, and likewise for delirium tremens. Sleeplessness, tremulousness of all the muscles of the body, complete nervous exhaustion, and utter absence of all desire for food, are additional characteristics indicating a demand for cimicifuga.

Coca is one of the few new remedies which seems capable of coping with the new disease known as "neurasthenia." It is an excellent remedy for American nervousness. The patients are sleepless, and inclined always to overdo themselves. Hysterical women and nervous men, with a multiplicity of erethistic symptoms, often require coca.

The coca patient frequently fluctuates between excessive depression, as if he were alone and uncared for in the world, and the opposite condition, which is manifested by a feeling of security, by a clear self-consciousness, and by an irresistible desire to attempt the performance of great feats of strength.

Cornus Circinata is a remedy indicated where there are acute disorders of the abdominal organs, copious and bilious diarrhœas, with excessive debility, and consequent nervous excitability. In these conditions the mind becomes confused, unable to concentrate its action upon any subject, and the victim falls into petulant depression of spirits, with great indifference for subjects which have heretofore been interesting.

Dioscorea Villosa exerts a curative action in cases where the patient experiences severe spasmodic pains in the abdomen, with sexual derangements, such as nocturnal emissions with relaxation of the genitals, and a consequent depression of spirits, with irritability and desire to be alone.

Gelsemium Sempervirens is a drug which, as a fever remedy, takes the first rank. Acting, as it does, upon the cerebro-spinal system, in a most profund manner, it very naturally finds a place in the list of remedies for mental disturbances. It is useful in acute cases where the heart's action is greatly disturbed, where there are pains in the neck like those of cerebro-spinal congestion, where there are nervous chills, intense prostration of the muscular system, sharp, darting pains along single nerve branches, together with a dullness of the mental faculties and a melancholy and desponding mood. Sometimes the patients rise to a state of anxiety and incoherency of thought, and again they sink into a stupid comatose condition. Those who have recently over-worked themselves, or indulged in intoxicating drinks to excess, or who have attacks of incipient epilepsy, or who indulge in hysterical demonstrations, are often benefited by the use of gelsemium. Recent prostration of body and mind, with fever, followed by easy and profuse perspiration, and accompanied with mental dulness, are among the prime indications.

Hamamelis Virginica is useful in mental depression and physical exhaustion, following active hemorrhages from the uterus, or from hemorrhoids.

Helonias Dioica, the false unicorn, is specially adapted to those mental states of excessive dulness and inactivity, with occasional irritability and fault-finding, such as follows acute affections of the kidneys, and uterine displacements accompanied by exhausting discharges from the vagina.

Hydrastis Canadensis is a remedy closely allied to nux vomica in its action upon the stomach and bowels. Where indigestion and constipation exist, together with an aphthous state of the mucous membranes of the mouth, with dull, heavy frontal headache, and a feeling as if intoxicated, together with crossness and ugliness of disposition, there hydrastis finds useful employment.

Iris Versicolor is sometimes called for in the treatment of hypochondriasis, where there are cutting pains in the abdomen, bilious diarrhœa, nausea and vomiting, nervous irritability, with prostration of the entire system, and a tendency to restless nights with bad dreams. The patient is easily vexed, and rouses from his despondency and confusion only to scold those about him.

Lilium Tigrinum has not only depression of spirits, characteristic of those remedies which act upon the heart, but likewise great fearfulness and apprehension.

The patient believes that some fatal, unseen disease is preying upon her; yet, ordinarily, there are only functional disturbances. The victim suffers with intense and overpowering headaches, accompanied with pains about the heart, and a sensation as if the heart were in a vise. There is great tenderness in the region of the sexual organs. The vagina, the uterus and the left ovary seem to be most involved. There are usually displacements of the uterus with acrid leucorrhœa, and, in addition to the dragging-

down sensation in the pelvis, there are sharp, neuralgic pains in the left ovary. Sometimes the right ovary is likewise involved.

Lithium Carbonicum has been prescribed in cases where there are feelings of pressure through the temples, of a weight on the vertex, and a difficulty in remembering names.

The *Monobromide of Camphor* has wrought favorably in sleeplessness of cerebral congestion, accompanied by tremulousness of the limbs, prostration following mental excitement and excessive study, and a tendency to look upon the dark side of everything.

Phytolacca Decandra is of service in the gloomy and irritable state of mind which sometimes accompanies an attack of syphilitic rheumatism.

Plantago Major may be favorably administered where there is great mental anxiety, intense agitation, sleeplessness, or sleep crowded with frightful dreams. These symptoms are caused by severe pains, which may arise from a toothache, or from wounds of such a nature as tend to blood-poisoning.

Podophyllum Peltatum, the mandrake, is an ancient remedy for hypochondriasis. Its characteristic symptoms of diarrhœa in the morning, with cramp-like colic, and its general and profound disturbance of the abdominal organs, are well understood. Accompanying these is sometimes a stupor, or at least a depression, in which the patient imagines she is going to die, or to be very ill. Where the diarrhœa alternates with constipation, and where there is a general inactivity of the bowels, stomach, and liver, with a hypochondriac mood, podophyllum in sensible doses often works a favorable and permanent change for the better.

Rhus Venenata has loss of appetite, dyspepsia, a red tongue, a bloated abdomen, with constant rumbling and griping in the bowels; aggravations before a rain; restlessness at night with a dry hot skin, and great sadness, with no desire to live. Everything seems dark and gloomy. The patient is forgetful, and the least attempt at mental labor increases pain. The melancholia is often preceded or accompanied by dull heavy headache in the forehead, with erysipelatous inflammation of the head and face.

Robinia Pseudo-acacia, the false locust, relieves the low spirits and irritability of patients who suffer from sour vomiting, where that symptom is the result and accompaniment of long-continued dyspepsia, or of cancer of the stomach.

Sanguinaria Canadensis is a useful remedy where insanity alternates, so to speak, with phthisis; where the ordinary chest symptoms of sanguinaria prevail; and where there is likewise vertigo, headache as if the forehead would split, intense nausea and vomiting; and where the patient is confused, morose, and cannot bear the least noise or attention.

Senecio Aureus, like helonias, has its effect upon the generative organs of the female. Accompanying the uterine symptoms are chronic inflammation of the neck of the bladder, with distressing tenesmus. Dysmenorrhœa, or suppression of the menses from a cold, with great sleeplessness, hysterical moods, and inability to fix the mind upon any subject, are quite characteristic. Like pulsatilla, the senecio patient has depression of spirits alternating with cheerful moods; but the pulsatilla case does not have the severe bladder symptoms of senecio.

Valerianate of Zinc, according to Hale, has insanity recurring with headache. The patient is liable to severe headaches, during which she becomes insane, screams, pulls her hair, and complains of many distressing sensations. After becoming quiet, there is loss of memory, with a sad melancholy mood. Just here we may state that a new remedy, rivaling valerianate of zinc, as a remedy for headache, is *melilotus officinalis*. This drug produces effects upon the brain which rival the combined effects of glonoine and belladonna. It has cured a number of headaches when all other remedies have failed, and in one case dispersed the attacks of epilepsy in a patient over forty years of age.

Veratrum Viride competes with aconite, baptisia, and gelsemium as a fever remedy. In the treatment of insanity it is specially adapted to those cases where there is intense congestion, and headache proceeding from the nape of the neck; violent delirium, suspicions of being poisoned, great restlessness, excitability and sleeplessness. It has been used with success in puerperal mania, in ordinary acute mania, in some of the phases of general paresis, and in insanity following attacks of epilepsy. The strong, rapid action of the heart, the pain and fullness in the head, the flush of the face, the seeing of spots before the eyes, the delirium and suspicion, which exist when veratrum viride is called for, are sufficient indications for its use.

Xanthoxylum Fraxineum, prickly ash, may be used in cases of paralytic dementia, especially after paralysis of the left side, accompanied by irritability, and a long persisting, despondent and frightened feeling.

Thus, as we gain experience and skill in the use of the new remedies, are our resources for the cure of mental and nervous diseases increased.

FLATULENCE and fluttering at the pit of the stomach, so often occurring in women at the menopause, are relieved, Dr. A. A. Smith asserts (*N. Y. Med. Jour.*), by doses of one-fiftieth of a grain of *calabar bean*, repeated every half-hour for six or eight doses.

ALCOHOL AS A FOOD.

By Eldridge C. Price, M. D., Baltimore, Md.

"'But that only throws a heavier responsibility upon strong men,' said Richling, half-interrogatively.

"'Certainly! Upon strong spirits, male and female. Upon spirits that can drive the axe low down into the causes of things, again, and again, and again, steadily, patiently, until at last some great evil towering above them totters and falls crashing to the earth, to be cut to pieces and burned in the fire.'"—*George W. Cable's* "Dr. Sevier."

In the April Times the writer quoted from Thos. J. May's "Therapeutic Forces," in refutation of Dr. William B. Carpenter's assertion, "that the alcohol taken into the body is not burned at all, but it is expelled from it as a substance foreign to its constitution." The evidence used in rebuttal of this assertion, though authoritative, and in itself tolerably conclusive, yet does not cover the ground sufficiently, and leaves much to be said.

Dr. Carpenter's assertion is equivalent to saying that alcohol is in no sense a food.

We will put the subject in the form of a proposition: Alcohol leaves the body as it enters; consequently alcohol is not a food. Conversely: Alcohol is not a food; therefore the body refuses to assimilate it, and it is expelled unchanged, as it entered. To my certain knowledge, there are those who really believe this. A few years ago Drs. Carpenter, Richardson, Lallemand, and other temperance teachers, believed it. I doubt if they do now.

The question, "Is alcohol a food?" demands an authoritative answer; demands facts, not opinions; demands the truth, nothing more, nothing less. The solution of the problem should not be in behalf of any particular theory, but simply for the sake of truth. Give the facts, both for and against alcohol, squarely to the people, deprived of all rant, and much more good will result than has ever been, or ever will be effected by pledges, praying bands, or other mistaken efforts in a good cause. The actual physiological and moral results of intemperance are sufficiently terrible without exaggerating them and playing with that dangerous petard, public credulity. Suppressing the fact of any inherent virtues of alcohol, will ultimately do more harm than good.

There are exceptions to all rules, especially rules of diet. I know an old lady of more than four score years, who readily digests raw cucumbers with vinegar, together with half a dozen eggs and vinegar, daily. Some persons can easily digest fried oysters, while the bivalve in any other form is like so much poison to them, and some children have thriven from infancy on a diet *largely* composed of cheese.

Not only is idiosyncrasy an element in the digestibility of all foods, but aliment may be classified as possessing greater or less digestibility for the *average* individual.

We have nothing to do with idiosyncrasy; the *average* individual alone claims our attention.

Of the pathogenetic, or the moral effects of alcohol we will say nothing, but will confine our remarks to alcohol as a food.

Preliminary to reviewing the data concerning the digestibility of alcohol, we will inquire the definition of "food."

Prof. James Tyson, of the University of Pennsylvania, in Buck's "Hygiene and Public Health," Vol. I., says: "In food are included all substances which, after ingestion, contribute to the structural, chemical, and functional integrity of the organism, whether they be directly converted into its tissues, contribute by their oxidation to its heat and other forces, or simply furnish conditions favorable to these operations."

Webster's Dictionary—edition of 1882—defines concisely when it says food is "anything that sustains, nourishes, and augments." This is, in a general sense, directly and indirectly, equivalent to Prof. Tyson's explanation. However, I think the last quality is unessential to a strict definition of food—unless we admit the necessary temporary repair of the wasted tissues, from meal to meal, as an augmentation—inasmuch as many individuals consuming the most typical kinds of food, maintain a uniform weight continuously for years, their bulk not becoming augmented by a single pound, and yet they are well nourished, and sustain any ordinary call upon them for expenditure of vital force.

We will also take exception to Webster's "sustains."

Samuel Johnson says food "is anything that nourishes"; and nourishment is anything that serves "to repair waste and promote growth." We accept this definition as correct, and preferable to Webster's.

A substance introduced into the stomach requires a certain amount of vital force to eject it therefrom. During this process of ejectment, the substance, either directly or indirectly, will return to the organism no force, less force, an equal amount of force, or more force than is expended. Substances that return more force, or an equivalent of the amount expended, are foods; those that return less or none, are not foods. This returned force is ultimate nourishment. The value of a food depends upon the amount of ultimate nourishment the organism can extract from it. Dr. J. Savage Delavan, of Albany, N. Y., asks the question:* "Does *alcohol* in any form supply to the human body any necessary ingredient that aids in the formation of healthy tissue, that develops nerve force,

* New York Medical Times, Sept., 1880. "The Use of Alcohol in Health."

or in any way acts as an element of healthy food, to the healthy organism, that is unattainable from other less harmful sources?"

The answer to this interrogatory does not affect the nutrient position of alcohol. It matters not whether other articles of food are obtained from more or less harmful sources than alcohol, or whether other articles act as more or less healthful foods than alcohol; the *degree* of alimentative value does not determine a substance to be a food. The point is, does alcohol "nourish"? If this can be decided affirmatively, alcohol is a food; if negatively, alcohol is not a food.

Prof. Henry M. Lyman, A. M., M. D., in his work on "Artificial Anæsthesia and Anæsthetics," writes: "The word alcohol is derived from the Arabic words *al* and *kohol*, signifying the impalpable power of antimonic sulphide, with which the oriental women were accustomed to darken their eyebrows. The primitive signification of the word *kohol* is *anything that is burnt* or *burns*. This probably refers us back to the most ancient times, when ashes were applied to the face, just as the Hindoo women mark their foreheads with charcoal and ashes. How the term came to be applied by the alchemists of the middle ages to the newly-discovered product of distillation, is unknown."

There are a large number of alcohols, all of which are harmful in their effects. Ethylic alcohol is the least harmful of the series. It is this form that is found in all kinds of fermented liquors; many of which liquors, however, also abound in the more harmful alcohols. Our remarks and references will be confined entirely to ethylic alcohol. In chemical language this is the hydrated oxide of ethyl, is composed of carbon, oxygen and hydrogen, and may be represented by the formula $C_2 H_6 O$.

Alcohol is the result of fermentation; it is a product of decomposition of sugar, generated by the action of certain minute organisms. Mr. Müntz, "a chemist of merit," has even found alcohol in "arable soil," the "waters of the ocean, and streams, and the atmosphere," "rain" and "snow." "Vegetable mould is quite rich in it; indeed, it is quite likely that alcohol, in its natural state, has its origin in the soil, through the fermentation of organic matters contained therein. It is afterwards disseminated throughout the atmosphere in the state of vapor, and becomes combined with the aqueous vapors whenever they become condensed."

Granting the truth of these discoveries, every man, woman and child must inhale and absorb from the atmosphere more or less alcohol, continuously. Surely, if this be the case, alcohol cannot be an unmitigated evil. Every believer in an Absolute Being must else doubt His goodness and perfectness.

Prof. Edmund A. Parkes, M.D., F.R.S., in his "Manual of Practical Hygiene," Vol. I., concerning the elimination of alcohol from the body, says: "Much debate has taken place as to whether all or how much of the alcohol is thus eliminated, and whether any is destroyed in the body. The experiments of Dr. Percy, and subsequently of Strauch, and especially of Masing in Buchheim's laboratory at Dorpat, followed as they were by the confirmatory obseravtions of MM. Perrin, Lallemand and Duroy, seemed at one time to have settled the question, and to have proved that alcohol is very little or not at all destroyed in the body. Since then the criticisms and experiments of Baudot, and especially the observations of Schulinus, Anstie, Dupré, and Subbotin, have again altered the position, and although the experimental evidence is incomplete (chiefly on account of the difficulty of collecting the amount given off by the skin and lungs), the opinion that some, and perhaps much, alcohol disappears in the body is generally admitted."

In a foot-note the same author says: "The amount eliminated by these channels has been variously stated. The latest observations are by Dupré, Anstie and Subbotin. According to Dupré, from experiment on himself, the amount eliminated by the urine and breath (he did not examine the skin) is only a minute fraction of that taken in, and it takes place chiefly in the first nine hours; subsequently the amount is excessively small. When taken day after day there is no accumulation of alcohol, so that the inference is, that as so little is eliminated, almost all must be destroyed. Subbotin's experiments were on rabbits enclosed in a closed chamber through which the air was slowly drawn. Like Dupré, he determined the amount by oxidizing the alcohol obtained into acetic acid by chromic acid; but he found that no inconsiderable quantities (nicht unbeträchtliche Mengen) were eliminated through the lungs, and skin, and kidneys, in the first five hours. Contrary to Perrin, Lallemand and Duroy, he found twice as much passed from the skin and lungs as from the kidneys. In 11 hours he found 12.6 per cent. was eliminated, and in 24 hours 16 per cent., and he gives reasons for supposing that the difficulties of the experiments (viz., difficulty of changing all the alcohol into acetic acid; of obtaining the alcohol from the chamber, of regulating the ventilation, and by the diminution of absorption at the end of the experiment, and by the limited time the experiment could be carried on) made the amount recovered far less than it should have been. Anstie made several experiments on the urine and sweat, and always found the quantities very minute."

Prof. R. A. Witthaus, in his "General Medical Chemistry," when treating of the physiological action of alcohol, says: "When diluted, ethylic alcohol may

be a food, a medicine, or a poison, according to the dose, and condition of the person taking it." "Taken in moderate quantities with food, it aids digestion, and produces a sense of comfort and exhilaration."

Proof of this last effect has been rendered easy by the experiments of Buchner,* who found that "alcohol by itself, up to 10 per cent., has no effect on artificial digestion," consequently—from the fact that alcohol, locally, is a so-called stimulant—digestion is, in the average stomach, aided by a small quantity of alcohol.

Prof. Witthaus continues (*op. citat.*): "Much has been written concerning the value of alcohol as a food. If it have any value as such it is a producer of heat and force by its oxidation in the body; experiments made in the interest of teetotalism have failed to show that more than a small percentage (sixteen per cent. in twenty-four hours) of medium doses of alcohol ingested are eliminated by all channels; the remainder, therefore, disappears in the body, as the idea that it can 'accumulate' is entirely untenable. That some part should be eliminated unchanged is to be expected from the rapid diffusion and the high volatility of alcohol."

Dr. T. Lauder Brunton, in the Edinburgh *Medical Journal* for August, 1877, says of alcohol: "When constantly or very frequently present in the blood, it causes accumulation of fat or fatty degeneration of organs; it undergoes combustion in the body, maintains or increases the body-weight, and prolongs life on an insufficient diet, being therefore entitled to be reckoned as a food; if large doses be taken, part of it is excreted unchanged."

From the "Treatise on Food and Dietetics," by F. W. Pavy, M.D., F. R. S., we copy the following: "Dr. Anstie directs attention to the experiments of M. Baudot, and gives the results of a repetition, with modifications of his own, which throw doubt upon the soundness of the opinion of M. Lallemand and others. It is asserted that the chromic acid test is one of extreme delicacy, being affected by the presence of the minutest quantity of alcohol, and that it is only when an excessive quantity of alcohol has been administered that its escape is to be recognized by any other means. It is also contended that, through the delicacy of this test, in reality only a fraction of that which enters is eliminated, and, if such be the case, there is nothing to prevent us from regarding alcohol as having an alimentary value.

"Considering the diffusible property that alcohol possesses, it is not inconsistent that a small portion should escape, and yet that the article should form a utilizable agent in the body. It certainly may be reasonably considered that evidence of a stronger nature than that which has been adduced should be brought forward before it would be right to look upon alcohol as devoid of alimentary value.

"Dr. Parkes, in conjunction with Count Wallowicz, has recently prosecuted an inquiry into the action of alcohol on the human body, and the question of elimination is touched upon as one of the points of consideration. Although they confirm previous observers in recognizing it, after its administration, by the chromic acid test, in the urine, and the exhalations from the lungs and skin, and further find it to a slight extent in the alvine dejections, yet their observations were only of a qualitative nature, and did not enable them, they say, to solve the difficult problem as to whether all the alcohol passes off, or whether some is detained and destroyed.

"In a later communication on the action of claret wine, they state that they obtained a marked reaction with the chromic acid test from the condensed perspiration of the arm, when no alcoholic fluid had been taken for twenty-six days previously. They are, therefore, led to suggest that the perspiration may at times contain some non-alcoholic substance capable of exerting the same reducing action,* and conclude that fresh experiments are necessary to determine the reliance to be placed on the test when applied to condensed perspiration.

"Communications have since been published in the 'Proceedings of the Royal Society,' giving the results of Dr. Dupré's experiments. Dr. Dupré agrees with Anstie and Thudichum in this country, and Schulinus and Baudot abroad, in believing that the chief portion of the alcohol ingested undergoes consumption in the body.

"Dr. Dupré starts with the proposition that 'obviously three results may follow the ingestion of alcohol. All the alcohol may be oxidized and none be eliminated, or a portion only may be oxidized and the rest be eliminated unaltered; or, lastly, all may be eliminated again unaltered. Assuming the last to be the case, it would follow that if a certain quantity of alcohol were taken daily, the amount eliminated would increase from day to day, until at last the amount eliminated would equal the daily consumption, be this in five, ten or more days. If, on the other hand, all the alcohol consumed is either oxidized or eliminated within twenty-four hours, no increase in the daily elimination would take place in consequence of the continuance of the alcohol diet.'"

"'Assuming, for the sake of argument, that all the alcohol is eliminated, and that such elimination takes ten days, it would follow,' aptly observes Dr. Dupré, 'that if a certain quantity of alcohol were taken daily, the amount eliminated would increase from day to day until, from the tenth day onward, the

* *Vide* MEDICAL TIMES for May, 1884.

* Or, may it not be the result of the minute quantity of the atmospheric alcohol, discovered by Mr. Müntz?

quantity eliminated daily would equal the daily consumption; in other words, the quantities which would be eliminated, if this theory were correct, might be measured by ounces instead of by grains, and even the most ordinary processes of analysis could not fail to yield considerable quantities of alcohol.'"

"Now, from the results obtained in two series of experiments upon himself, Dr. Dupré sums up as follows:

"'The amount of alcohol eliminated per day does not increase with the continuance of the alcohol diet; therefore all the alcohol consumed daily must of necessity be disposed of daily, and as it certainly is not eliminated within that time, it must be destroyed in the system.'"

"'The elimination of alcohol following the ingestion of a dose or doses, of alcohol, ceases in from nine to twenty-four hours after the last dose has been taken.'"

"'The amount of alcohol eliminated, in both breath and urine, is a minute fraction only of the amount of alcohol taken.'"

"In agreement with what had been noticed by Dr. Parkes and Count Wallowicz, Dr. Dupré found, in the course of his experiments, that after six weeks of total abstinence from alcohol, and even in the case of a teetotaller, a substance was eliminated in the urine, and perhaps also, it is stated, in the breath which, though apparently not alcohol, gave all the reactions ordinarily used for the detection of traces of alcohol. 'It passes over,' Dr. Dupré says, 'with the first portions of the distillate; it yields acetic acid on oxidation, gives the emerald green reaction with the bichromate of potassium and strong sulphuric acid, yields iodoform, and its aqueous solution has a lower specific gravity and a higher vapor tension than pure water.'

"Dr. Dupré further remarks that 'the presence of a substance in human urine and the urine of various animals, which yields iodoform, but is not alcohol, had already been discovered by M. Lieben. The quantity present in urine is, however, so small that the precise nature of this substance has not as yet been determined.'"

"Shortly after the publication of the first edition of this work, an article from the pen of Dr. Anstie appeared in the *Practitioner*, entitled 'Final (and the word final has received a melancholy expressiveness by Dr. Anstie's untimely death) Experiments on the Elimination of Alcohol from the Body.' In harmony with what has preceded, evidence is there adduced which shows that only a fractional proportion of the alcohol ingested is eliminated through the various channels of exit from the body.

"An experiment is related in which, after the administration of Bordeaux wine to six persons in sufficient quantity to produce intoxication, not more than one per cent. of the alcohol ingested could be recovered by distillation from the collected samples of urine. In another experiment, after the administration of brandy to the extent of one ounce daily for ten days to a dog, the animal was killed, and the alcohol obtained from its whole body determined. The quantity recoverable amounted to about one-fourth of that contained in the dose which had been administered two hours previous to death. 'These experiments,' it is remarked by Dr. Anstie, 'certainly furnish us with a final and conclusive demonstration of the correctness of Dr. Dupré's arguments against the possibility of material *accumulation* of alcohol in the body.'"

"From a review of the evidence as it at present stands, it may reasonably be inferred that there is sufficient before us to justify the conclusion that the main portion of the alcohol ingested becomes destroyed within the system, and, if this be the case, it may be fairly assumed that the destruction is attended with oxidation and a corresponding liberation of force, unless, indeed, it should undergo metamorphosis into a principle to be temporarily retained, but nevertheless ultimately applied to force-production. The subject appears to me to be open to physiological as well as chemical investigation, and probably some additional light may be hereafter thrown upon it by an approach through the former channel."

To further establish the claim of alcohol to consideration as a food, I quote the following from the work of Dr. Henry M. Lyman, before mentioned: "The capacity of alcohol to replace other alimentary substances is well exhibited by the effects of an alcoholic diet. In certain breweries it is customary to allow the head brewer as much as sixty glasses of beer *per diem*. He lives almost entirely upon this liquid food, consuming very little else of any kind. This, however, is not a fair example of alcoholic regimen, because in beer the unfermented sugar, and the other nutrient substances besides the alcohol, occupy a position of no inconsiderable importance. But the observations of Anstie have placed beyond question the fact that life can be sustained by a diet consisting almost exclusively of diluted alcohol. In his work on 'Stimulants and Narcotics,' (p. 387), he relates the history of an old soldier, eighty-three years of age, who for about twenty years had lived principally upon a bottle of gin each day. This he drank diluted with water, but without sugar. Beside this, he was in the habit of eating 'one small finger-length of bread, usually toasted,' which was 'all that he *ever* took from one end of the day to the other.' He did not drink tea or coffee, or any other beverage beside his gin and water. He was in the habit of smoking a

few pipes of tobacco each day. This case was carefully investigated by Anstie, and was under his immediate care for a year until he died of bronchitis. The author remarks that 'the man's appearance was very singular and not easy to describe; it was not that he was very greatly emaciated, but he had a dried-up look which reminded me of that of opium eaters.' A number of similar cases were also collected by Dr. Anstie from the experience of his medical friends. Dr. Slack, of Liverpool, informed Dr. Inman that two female patients of his own, who loathed all ordinary food, had subsisted for months on nothing but alcohol in one shape or another; one of these, who was bed-ridden, appeared actually fatter at the end of three months than she was at first. A surgeon's widow informed Dr. Inman that, after several successive severe illnesses, she had suffered much after her last confinement; at this her appetite had entirely failed her, and she had lived for many weeks on nothing but brandy and water. A surgeon at Wavertree 'attended a young man with hypertrophy and patulous valves of the heart, from September 24, 1855, to April 26, 1860. For the last five years no animal food would remain on his stomach, and farinaceous food he would seldom take. In the first two years brandy was the principal nutriment he subsisted on, as nothing else would remain on his stomach. Subsequently he *lived upon* this same beverage. His allowance first was six ounces of brandy, but it was gradually increased to a pint a day; he kept his flesh and good spirits to nearly the last. During the last two years he was dropsical, and he died at the age of twenty-five.' Mr. Nisbet, of Egremont, communicated to Dr. Inman the case of a man in the middle class of life, who subsisted for seven months entirely on spirits and water: 'he was apparently in good health and good condition.'"

"The same medical practitioner reports the case of a child affected with marasmus, who subsisted for three months on sweet whisky and water alone, and recovered; and that of another child who lived entierly upon Scotch ale for a fortnight, and then recovered his appetite for common things. Dr. Inman himself 'had a lady patient who was several times on the verge of *delirium tremens*, and he gained an intimate knowledge of her habits from personal observation, from the reports of her husband, of mutual friends occasionally residing in the house with her, of her mother, of her sisters, of her nurse. She was about twenty-five years of age, handsome, florid, and *embonpoint*, of very active habits, yet withal a delicate constitution, being soon knocked up. This lady had two large and healthy children in succession, whom she successfully nursed. On each occasion she became much exhausted, the appetite wholly failed, and she was compelled to live solely on bitter ale and brandy and water; on this regimen she kept her good looks, her activity and her nursing, and went on in this way for about twelve months; the nervous system was by this time thoroughly exhausted, yet there was no emaciation, nor was there entire prostration of the muscular power.' Among my own patients I was called upon to treat a young man who was threatened with delirium tremens. He assured me that for three weeks he had lived on nothing but whisky and water, taking between forty and fifty glasses of the mixture each day. He had not lost flesh during this time, but his nervous system was much exhausted, and he could not sleep. He rapidly recovered, and I never saw him again.

"The following table, from Anstie's work on 'Stimulants and Narcotics,' will be found interesting in this connection:

No.	Sex.	Age.	Occupation.	Duration of Intemperate Habits.	Quantity of Alcoholic Liquors taken.	Effects upon Diet.
1	M.	27	Tailor.	Twelve years.	One pint of gin per diem and two pots of porter.	Eats very little solid food.
2	M.	83	Pensioner.	Many years.	One bottle of gin per diem for the last 30 years.	Eats one small fragment of bread in the day.
3	M.	40	Hawker.	Many years.	About one pint of raw brandy per diem.	Eats no meat, only a little bread and tea.
4	M.	29	Hawker.	Ten years.	About one and one-half pint of raw gin per diem.	Eats a very fair quantity of food.
5	F.	42	None.	Fifteen years.	About three-quarters pint brandy (with water) per diem.	Eats almost no ordinary food.
6	M.	28	Tavern waiter.	Eight years.	Four pots of beer and one pint or more of spirits per diem.	Says that he hardly ever touches solid food.
7	M.	46	Tavern waiter.	Twenty-two yrs.	Has lately reached two pints of gin and a little beer per diem.	Eats only one small meal a day.
8	F.	64	None.	Thirty years or more.	Latterly one pint of gin per diem.	Eats no food except biscuit; no tea.
9	M.	42	Coal-porter.	Twenty-four yrs.	For some years past twelve pints of beer per day;	Eats pretty well.
10	M.	21	Cabman.	Six years.	For some time past one pint of rum per diem.	Eats little solid food.
11	F.	21	None.	Four years.	From half pint to one and one-half pints of gin per diem.	Eats hardly any solid food.
12	M.	27	Brewer's drayman.	Eight years.	Two gallons of beer per diem; a bottle of whisky every Saturday.	Eats little solid food.

"Observations like these render it impossible to deny the nutritive value of alcohol. It is not correct to say that alcohol is merely useful as a means of preventing the waste of pre-existing tissue. No substance can thus for years supply the place of the

greater part of ordinary food without being really capable of assimilation by the tissues. At the same time the history of all such cases indicates the insufficiency of such a diet."

To still further prove that alcohol should be regarded as a food, I excerpt the following from the TIMES, which was copied from *Schmidt's Jahrbucher* for January 27, 1881: "Experiments made by Dr. Reiss with absolute alcohol, diluted to forty per cent., show a considerable decrease of the most important constituents of the urine, and an increase of the weight of the body amounting to 880 grammes. The temperature and pulse remain normal. Considering that the change of diet to one richer in nitrogen ought to have produced an increase in the amount of nitrogen excreted, and that diuresis was increased, and consequently a tendency to a more abundant excretion of urine, the result obtained demonstrates anew that alcohol is to be regarded as a food, and that its favorable influence upon the condition of the organism is attributable, not alone to its stimulating, but also to its nourishing properties."

The foregoing evidence does not justify us in denying that alcohol is a food, as have Drs. Lallemand, Carpenter, Richardson, and temperance lecturers generally.

Undoubtedly the flesh of horses, mules, dogs, cats and rats is food, but we refuse to eat them when we can get better.

Unquestionably alcohol is a food, but a poor food. It is quite as digestible for some stomachs as is pork, cheese, eggs, or honey for others.

It is probable the continued ingestion of pure ethylic alcohol would be less hurtful than the continued use of the purest liquor of which it forms a part. Prescribed with discrimination, we believe alcohol will produce beneficial results, but we are opposed to its indiscriminate use as a food. Even for its stimulating effect we advise caution in its use. *Apropos:* Dr. Richardson denies that alcohol is a stimulant at all. He believes alcohol paralyzes the vaso-motor nerves whenever it comes in contact with them, producing sanguineous congestion.

Alcohol is thus a primary *sedative*. Whatever be the *rationale* of its local action, the result is often beneficial, temporarily, at least.

The cause of alcoholic temperance, or even total prohibition, is commendable; in the main it should be supported.

The temperance cause is often unfortunate in its advocates. Many of them are unreasonable, in fact, fanatics; others are ignorant; a few only appreciate the real significance of temperance.

Temperance should be taught the child from infancy; it should sit with him at the breakfast table, be his guide through the day, and put him to bed at dark.

Temperance, in health, uses no condiment or other stimulant, *as food*. A weak stimulant begets a taste for a stronger. Thus drunkards are developed. In health, temperance uses no more tobacco than alcohol. Temperance not only avoids extremes in diet, or in palatal tastes, but in all things. From such a course of life a perfect physical and moral being may be evolved.

Though alcohol is a food, it is an extreme food, and unfit for universal consumption; it is never necessary in health, and in sickness its use is limited. Its prescription is often followed by excess. Dr. James Henry Bennett says truly: "When alcohol is prescribed medicinally there is always risk of abuse. It is a double-edged sword."

Probably the safest way to prescribe alcohol is that advised by Dr. Pemberton Dudley, of Philadelphia. He suggests that alcohol be given alone, simply diluted in proper proportion with water. The idea was offered in the form of a resolution and adopted by the Homœopathic Medical Society of Pennsylvania, at its annual meeting at Pittsburg, February, 1872. Dr. B. W. Richardson has also recently recommended this method of prescribing alcohol. After reading his paper on this subject before the British Medical Temperance Association an interesting discussion followed, in which "Dr. Drysdale said that alcohol should never be administered in the form of wine, brandy, whisky, beer, or any common form of spirits. These beverages were never scientific combinations; they comprised all degrees of strength and purity, and their action on the body was ununknown."

To prevent the patient knowing the nature of his medicine his prescription may be written to call for the hydrated oxide of ethyl—C_2H_6O.

THE EFFECTS OF MENTAL STRAIN.*

BY. F. H. ORME, M. D., ATLANTA, GA.

Indiscretion is unfortunately a common failing of humanity—although in contradiction of the "common sense" which every one stilts himself upon possessing in a predominant degree, however deficient he may acknowledge himself to be in other respects.

Intemperance in mental work, especially under unfavorable conditions, is more baleful in its effects in proportion to the extent of the realization of the mischief, than is any other form of indiscretion—the evil of the other kinds being more readily observed. Many useful lives are sacrificed through ignorance of the danger of mental strain, and the want of proper medical advice at the right time.

Cerebrasthænia is a condition which is not so easily

* Brief synopsis of paper presented to American Institute.

overcome as are other forms of exhaustion, the exhaustion from muscular exercise, especially, being more readily compensated for.

Modern appliances, telegraphy, stenography and other facilities for the rapid transaction of business, have tended to intensify brain work, enabling business men to dispatch a large number of affairs requiring thought, but of course at a corresponding expense or waste of tissue. The most natural way is to combine manual with mental labor.

Too many hours of continuous mental effort, especially in unsanitary apartments, and when accompanied with worry and deep concern, lead, more frequently than is supposed, to broken health. The indications of injury are not commonly recognized by the victim, and indeed are only discovered by the most observant physicians.

Indigestion, lassitude, indifference, palpitations, irritability, general nervousness, unreadiness for accustomed duties, etc., often betoken mental strain.

Change of scene, of habits of life, is often imperative; indecision at such times leads to disastrous results. The physician should be positive when the patient is vacillating. Indeed a physician who is not decided and emphatic—a timid man—is not a competent adviser.

Use strengthens, while abuse impairs all the organs, mental as well as physical. Great intellectual achievements have been accomplished by systematic work under favorable conditions, by brain-workers who have attained a great age, without strain. Strain comes with irregularity in life, and especially with intense anxiety. Effort too long continued, with insufficient rest, will break the strongest constitution. The tendency to flatter oneself that warning of danger will be given, is strong, but delusive. The evil declares itself at times, only when too late for remedy.

A man with altered mood, a feeling of unrest, with lassitude, insomnia, etc., if a mental worker, should seek the advice of an expert, for he is often in a condition of danger without suspecting it. Many of the vague feelings of indisposition which cannot be assigned to some recognizable cause, are attributable to the effects of mental strain. The manifestations of the injurious effects of cerebral overtax are various, but important—the manifold symptoms of neurasthænia often being followed by failure of some special organ, according to the predisposition, either from inheritance or from habits of the patient.

The change of *air* so often found to be beneficial, is so because of the change of surroundings which accompanies it. There is refreshment in change, even if the labor should be as great. The diversion is the charm. Change of air is constantly going on with every change of wind at home—it is the change *from the rut* that does good.

Impure air in working rooms will incapacitate one for efficient work, and will even produce symptoms simulating those occasioned by mental strain; the combination of foul air and overwork of the mind is ruinous.

Physicians generally are not sufficiently alert to discover the cause of trouble in cases of mental strain. Change of spirits and of character should excite concern. The physician owes a duty of watchfulness, especially in those cases where the significance of symptoms cannot, in the nature of things, be understood by the patient or his friends. If he does not give warning, and insist, often with determination, upon a proper hygiene of the mind, the most serious consequences may ensue—while by an intelligent vigilance on his part he may have the consciousness of doing professional service of a high quality and of saving valuable lives.

THE CARE OF MINOR CRIMINALS IN STATE INSTITUTIONS.*

By G. M. Ockford, M. D., Revere, Mass.

The system of discipline should be reformatory rather than punitive; moral regeneration the principal object to be sought. The hope of reformation varies in different criminals. Causes of crime are hereditary transmission and habits of idleness, ignorance and evil associations, idleness being the principal of the acquired causes, begetting as it does ignorance and association with evil-doers. The object of imprisonment should be to change the idle, lawless disposition into an industrious, law-abiding one. The law of descent and conditions of childhood of the hereditary criminal classes perverts or entirely blunts the moral perception, rendering the moral regeneration of this class well-nigh impossible. Their criminal habits are a legacy from previous generations; they belong to a mental and moral degenerate class of the population, and are incorrigible criminals. Age is the most potent factor in subduing the tendency to crime, which reaches its maximum about the twenty-fifth year,—after that, natural diminishing of strength and passion. Term of imprisonment should extend over this period of adolescence, when the fires of passion are strongest, and the character of the man is forming. In the care of criminals, the twenty-fifth year should be considered as the division of life, rather than the twenty-first, and incorrigible criminals who cannot or will not conform to the laws of society should be imprisoned especially between the eighteenth and twenty-fifth years of age. The criminal tendency should be treated as a disease, and rigidly quarantined. Quarentine should be maintained until the period

* Brief synopsis of paper presented to American Institute.

of natural convalescence. Such long terms of confinement might unfit the criminal for life outside prison walls, but the benefit to society would justify the injury to the individual. Usual methods do not make them anything but useless citizens, and longer imprisonment, and other methods, could not produce any worse results. The prospect of long terms of imprisonment might deter minors from commencing a criminal career. There is always hope of reformation in those who have become criminals simply from evil associations. Moral training only produces transitory reformation. The great causes of crime in the young—idleness and ignorance—must be overcome. Ignorance of the means of existence causes idleness and accompanying evils. The education of minor criminals must be *technical* in character, teaching the hands as well as the intellect. It should include a compulsory apprenticeship to some trade, which should be taught in all its details. A knowledge of ability to work will do much to establish habits of industry, and so prevent that criminal idleness. It will not do to turn a prisoner from a comparatively comfortable institution to starve, unless we expect him to commit more crime. A change from a state of comfort to one of misery has always been an incentive to crime. The contract system of labor is an injury to minor criminals, as under its working they acquire no technical knowledge, and nothing that will take the place of criminal methods. A practical education should be bestowed upon these dependents of the State. Prisons should have a graded system, and there should be no common intermingling of the different classes of criminals. "Evil communications corrupt good manners" more in prison than without. Old and hardened criminals abuse and demoralize younger associates if thrown in together. Isolation should be the invariable rule for sleeping hours. Crime, like disease, feeds upon itself and becomes more intense from the crowding together of infected persons. Dormitories breed crime and insubordination. A tendency to crime develops spontaneously in common sleeping apartments where a number of minor criminals are confined.

Efforts should be made to place discharged prisoners in favorable localities, where temptation is the least, and criminal population the smallest. Summer is the best time for a discharged prisoner to commence life again in the world. The domicile and support of minor criminals should be the same as that of other State dependents. The laws regulating the labor of minors should apply to State dependents as well as other children. The way to reform abuses is to thoroughly educate minor criminals in useful methods of work, and so confer upon the offender a means of existence superior to that of street ruffians or other evil doers.

CLINIQUE.

DEEP DRAINAGE AND A NEW DRAINAGE TUBE CARRIER.*

BY H. I OSTROM, M. D., NEW YORK.

THE advantages derived from thorough drainage in the treatment of wounds are at present sufficiently appreciated to render any defence of the system unnecessary; the method of its application is, however, deserving of consideration.

In the drainage of wounds, we seek mainly two results: *First*, the free removal of deleterious fluids from the wound. *Second*, the possibility of freely irrigating the wound cavity. To the latter I wish to call especial attention.

It will be remembered that the cases requiring drainage are those in which the hope can no longer be entertained of obtaining union by first intention. This issue may be foretold in the beginning, from the extent or nature of the injury, or may develop later, and necessitate the introduction of a drainage tube after the primary dressing; but in either event, there is reason to expect that the exudation, and white blood corpuscle migration, will be in excess of the absorbing capacity of the lymphatics, and some artificial means must be provided for the removal of this excess.

The question is one of mechanics, and by observing mechanical laws we obtain the most perfect drainage of wounds. In a certain sense and to a limited extent, drainage, whether effected by means of animal ligatures, horse hair, decalcified bone, or a rubber tube, may be compared to the excretory duct of a gland, but unlike the glandular apparatus, there is neither *vis a tergo* nor muscular contraction to force the fluid to the surface, and hence, if the atmospheric pressure is not relieved, the secretion can flow from the wound only when something lighter than the discharge is allowed to pass through the wound-track to take the place of that discharge; the something is atmospheric air, and thus one of the first objects of drainage—to prevent access to the wounded surface of septic-charged air,—is defeated. This mechanical obstacle to the natural drainage of wounds is overcome in two ways, *first*, by allowing both ends of the drainage apparatus, after it has traversed the depth and length of the wound, to open upon the surface of the body; and *second*, by applying pressure over the entire wounded surface.

In reference to the first, it is in this place convenient to speak of the material used for drainage. Where it can be used—and with the drainage tube that Messrs. George Tiemann & Co. have made for me,

* Read before the Homœopathic Medical Society of the County of New York, May 10, 1884.

but few wounds calling for drainage are too small to admit a drainage tube—I have found nothing to equal a perforated rubber tube. In it are combined the advantages of a non-absorbing material, cleanliness, thorough drainage, easy introduction and removal, and an article to be obtained at almost any time and place. I am in the habit of using, where drainage is called for, a perforated rubber tube of a calibre suited to the requirements of the case, and have discarded from my practice other methods of drainage, with the exception of the flap drainage, in operations about the breast, or in amputations, where the flap is dependent, and the drainage tube cannot easily be made to reach the deepest part of the cavity; in such cases I find, in connection with the drainage tube, advantage to follow incisions made through the flap, after the method proposed by Neuber for "deep canalization."

For ordinary wounds, where the incision is brought together by sutures, it is sufficient to lay the drainage tube on the bottom of the wound, and cause an end of the tube to emerge at each end of the incision, but when the surface to heal is extensive, or the depth of the wound is in excess of the superficial lesion, it will be necessary to make a counter-opening as nearly as possible opposite to the one through which drainage will take place; or if the opening of the wound is on the upper aspect of the body, and in a situation from which drainage would not naturally occur, the counter-opening should be made in the most dependent part, and allow gravity to aid the process. Through this counter-opening the drainage tube is passed, and the superior opening is then covered with an antiseptic filter.

The advantages of deep drainage, or more accurately, drainage of the deep parts of a wound, are especially observed in operations upon bone. Here, what I may designate the incision of operation, to distinguish it from any incision made to facilitate drainage, is frequently on the upper or outer part of the limb, from where discharge cannot take place until the cavity is full and overflows; if a counter-opening is made through the opposite side, the incision and parts involved in the operation will heal quickly, and the sinus occupied by the drainage tube alone remain open. So well convinced am I of the necessity of relieving atmospheric pressure, by admitting filtered aseptic air into the wound at a point opposite to that from which the discharge takes place, that I have applied the method to drainage in ovariotomy. Not every case of ovariotomy requires drainage, but where this seems advisable, the suggestion of the late Dr. Sims to drain through the vagina, will be made more satisfactory by carrying the upper end of the drainage tube through the lower end of the abdominal incision. I am now conducting some experiments for the purpose of determining the most convenient shape for such drainage tubes, and hope soon to have some made of glass, that I may take an early opportunity to test their value.

We have now to consider the second result sought in drainage—irrigation. Remembering that the wound into which the drainage tube is introduced has passed beyond unaided nature, in many cases it becomes evident that drainage alone is not sufficient to restore health to the diseased tissues.

The raw surfaces as readily absorb the forces that conduce to health as they do those which induce disease, and, aside from the facility with which a drainage tube having both ends free can be cleansed without removal, this method of introduction permits the application of antiseptic and curative agents to the wounded surfaces. It also permits irrigation with cold water, by which means I have succeeded in reducing the temperature of the part operated upon, better, I have thought, than by means of the cooling coil placed outside of the parts, or by external irrigation.

A drainage tube, properly placed, need not ordinarily be removed until the discharge has ceased, which, in itself, is evidence that all excepting the track of the tube is healed. The tube and entire cavity can be cleansed without disturbing the process of healing.

To facilitate the deep introduction of the rubber drainage tube, Messrs. George Tiemann & Co. have constructed, at may suggestion, an instrument that I find answers the purpose for which it was designed.

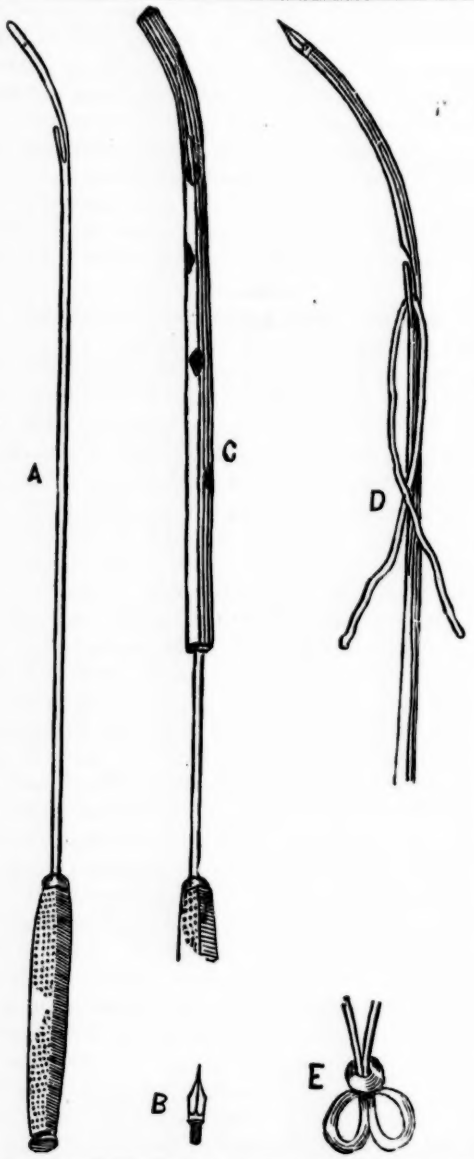
The instrument consists of a steel shank, nine inches long, and the size of a number eight sound, French scale, inserted into a handle, and slightly curved at its free end *A*. Where the curve begins is a slot formed at the expense of the shaft, having at its proximal end a thin fixed tongue, which projects in the direction of the shaft of the instrument. The instrument, when ready for use, passes through the entire length of the drainage tube *C*, one perforation of which is made to catch in the tongue, and is thereby held firmly when the instrument is pressed forward, but when the reverse motion is made, by slightly holding the tube, the instrument is withdrawn, leaving the tube in position. The advantages of this drainage-tube carrier are:

First, it occupies little space, and hence is especially adapted to the reintroduction of a drainage tube.

Second, it permits accurate placing of the drainage tube; as it is not necessary to hold the tube taut during the passing of the instrument, when the latter is withdrawn the tube remains in the exact position in which it was placed by the instrument.

I have had the shaft fitted with two ends, one blunt, for reintroduction, the other pointed, *B*, for the purpose of making a counter-opening, and also that the instru-

ment may serve as an elastic ligature carrier. When used for the introduction of an elastic ligature through an anal fistula, an operation that I do not often perform, preferring the cutting operation, the ligature is doubled around the tongue of the instrument, and passed double through the fistula, *D*. The instrument being withdrawn in an opposite direction from that in which it entered the fistula, there remains protruding from the anal opening a loop of the ligature, and from the external opening of the fistula the two free ends of the ligature. One of these free ends is then to be passed through the loop and tied to the requisite degree of tightness with the other free end; or if the fistula is deep, including much tissue within the ligature, the tension of the ligature is regulated by pinching a perforated shot, sufficiently large to prevent the slipping of the distal loop over the free ends of the ligature *E*. As the included tissues yield to the pressure of the ligature, it may become necessary to tighten the latter—though this is exceptional if the primary operation is properly performed. When, however, the parts have so much contracted that the ligature is no longer in contact with them, and at the same time the fistulous track is not cut out, the ligature may be drawn to the required tightness, and prevented from slipping by securing a second shot on the distal side of the one first applied, the latter can then be removed. This process may be repeated until the structures included within the ligature are cut through.



A, Drainage tube and elastic ligature carrier. *B*, Sharp point. *C*, Carrier, with drainage-tube adjusted for insertion. *D*, Carrier with elastic ligature. *E*, Elastic ligature after insertion, with perforated shot in position.

CASE OF FRACTURED CLAVICLE; PERFECT UNION.

BY W. JOHN HARRIS, M. D., ST. LOUIS, MO.

THREE months ago I was called to a lady 64 years old, who had fallen down stairs, striking upon the shoulder. I found her suffering great pain in the shoulder, the parts were extensively bruised, and there was a fracture at the outer third of the clavicle.

I kept her quietly in bed for five days till the swelling of the tissues had subsided, and then applied the adhesive strips as recommended by Prof L. A. Sayre.*

Taking two strips of adhesive plaster, about two inches wide, I passed one end round the arm, about two inches above the elbow, drawing the arm back, so as to put the pectoralis major upon the stretch, carried the strip on round the body and fastened the end to the back again. The arm was next flexed at an acute angle over the chest, bringing it upward, forward and inward. Both fragments of bone now being in a perfect line, the arm is secured in this position by passing the other strip of adhesive plaster over the elbow, across the back to the point of the opposite shoulder, along the arm and hand and up again to the shoulder and fastened to itself.

The patient now got up, and was around every day, soon went out of doors, and regained her customary health.

The plaster was removed ofter two weeks, when partial union was found to have taken place. The strips were re-applied, and kept on till they worked partially lose, when they were put on again. At the end of the seventh week complete union had taken place, and the patient gradually began to use her hand. She can now sew and use it altogether as well as before the accident.

The result is perfect in every way, and when we take into consideration the age of the patient, I think this plan of treating fractured clavicle is well worthy of more extended trial.

It does away with all axillary pads, the pain of which is sometimes simply unbearable.

* We have applied this apparatus in several cases with the best results.—EDS.

The New York Medical Times.

A MONTHLY JOURNAL

OF

MEDICINE, SURGERY, AND COLLATERAL SCIENCES.

EDITORS:

EGBERT GUERNSEY, M.D. ALFRED K. HILLS, M.D.

Business Communications should be addressed, "**Publishers, 526 Fifth Ave.,**" and Checks, etc., made payable to THE NEW YORK MEDICAL TIMES.

Published on the First of each month.

OFFICE, 526 FIFTH AVENUE, NEW YORK.

WM. B. WOOD, M.D., *Business Manager.*

NEW YORK, AUGUST, 1884.

"*A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and* OUGHT *to be the* ONLY ACKNOWLEDGED RIGHT *of an individual to the exercise and honors of his profession.*"—Code of Medical Ethics, Amer. Med. Ass., Art. iv., Sec. 1.

Our practice is *not* "based on an exclusive dogma, to the *rejection* of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

RE-DISCOVERY OF OLD TRUTHS.

IT is so difficult to determine what is new and what is old in literature and science, that a careful research into the literature of the past will bring to light much in theory and in fact which has been entirely or partially forgotten, or the knowledge retained only by a few. It is amusing to see the scientists of every age proclaiming as wonderful discoveries, as startling facts, truths and conclusions which have been reached long before, and which have been overlooked or ridiculed until, with a blare of trumpets, they are introduced to the public by scientists of profound respectability as their own offspring. No credit is given to former investigators, who had reached the same conclusions years before, often, however, by a different line of reasoning and a different process of investigation. One line of investigation strengthens another, especially if, by different routes, the same point is reached, and every scientist is glad to see an accumulation of evidence in support of any great theory, which will render it impregnable. Modesty, however, might, to say the least, prompt the scientist to give a little credit where credit is due, especially where the true facts of the case have been pointed out to them. Thus when Prof. Tyndall stated, in an able paper on the "Methods and Hopes of Experimental Physiology," as one of the last results of scientific research, "that alkaline sulphides introduced into the body, act powerfully on the contagion of marsh fever, typhoid, miliary, puerperal fever, and small-pox, and that in cases of pus affections these sulphides have been found particularly efficacious," he only stated a partial truth, mixing it up with an ignorance of scientific work for which he should be ashamed. The facts which he stated are so far from being among the "last results of scientific research," that they are as old as Hahnemann, and utilized by the great army of physicians who look upon the founder of homœopathy as a leader among the great scientists in medical philosophy. He taught, a hundred years ago, what is now proclaimed to the world as a new discovery, the use of *hepar sulphur* (a compound of sulphur and lime) in cases of pus infection, and the very corner-stone of his system of therapeutics was based upon the principle illustrated by the action of quinine, an alkaloid of Peruvian bark, in marsh and typhoid fevers. We are glad to see, even at this late day, so distinguished a scientist as Prof. Tyndall practically admitting the distinctive principle of homœopathy, even though he gives no credit to Hahnemann.

The Asiatic cholera, that fearful scourge of the human race, has again started from its old birth-place in India, in its march westward along the track it has followed in times past. It has already reached France, and those who remember its former devastations tremble at the thought of its near approach to our own country.

Koch, Fischer and Geoffrey, in their researches in Cairo and India, profess to have established on a scientific basis the germ hypothesis of the origin of cholera, but is it true that all knowledge of this theory, so far as this disease is concerned, dates back to the investigations of Cunningham and Lewis, in India, twelve or fourteen years ago, and that since then all the facts to establish it have been accumulated and worked out? We take down from a shelf in our library an old volume of the Lesser Writings of Hahnemann, a collection of short papers and essays, and turn to one written in 1831, entitled "The Mode of Propagation of Asiatic Cholera," in which he states that the contagious matter of cholera probably consists of excessively minute invisible living creatures," and goes on to describe the manner of propagating, almost in the precise words recently used by Prof. Tyndall and Dr. Carpenter. But Hahnemann does more than point out the probable cause of cholera—he indicates the remedy. He believed that camphor

destroys those living germs, a remedy which in all the epidemics of cholera, when given according to his instructions, has met with wonderful success. To insure the complete destruction of these minute organisms—corresponding to the cholera bacilli of Koch—he recommends that a drop of the saturated spirits of camphor be given every five minutes, camphor spirits be well rubbed into the skin, an enema of two teaspoonfuls of spirits of camphor in a half pint of warm water be administered, and camphor distributed in the form of vapor through the room by placing some lumps of it on a hot iron, and allowing them to evaporate. This was the treatment recommended to destroy the germs. Other remedies might be required afterward, such as veratrum album, cuprum, arsenicum, etc., to meet pathological conditions. It remains to be seen whether Koch or his brother scientists can suggest any better germ-destroyer, or if, according to Dr. Richards, the poison is of a chemical character, any surer antidote.

CHOLERA.

IT is an interesting fact, and should not be without its proper warning, that the epidemic, now so terrible in the East, is following nearly the same track as in previous years. In 1835 it was epidemic in lower Egypt, where it destroyed upward of 80,000 persons. It reached France and Germany in September, and was discovered on emigrant ships from their ports, at New York, in November. It was supposed to be thoroughly stamped out at quarantine, but in the following year it burst out in several points in this city, and in seven months numbered as its victims 1,137 persons. In 1849 the cholera was again brought here in French vessels, and caused in this city alone 5,071 deaths. The disease spread with fearful rapidity and fatality all along the great lines of travel, penetrating into cities, towns and villages, carrying everywhere the seeds of death. In 1873 the outbreak was far distant from any great port, hundreds of miles from New Orleans, up the valley of the Mississippi. It was afterwards, however, traced to an unsuspected introduction into New Orleans.

In the light of the past, it is evident that the ordinary steps of quarantine are insufficient to protect us, and we are glad that at the port of New York the health officer fully alive to the duties of his position, fumigates every vessel arriving from an infected port, and conveys the goods to the city by lighters, entirely under his control. We do not believe this scourge will again appear in our midst, because the lessons of the past have been such as to insure a quarantine as complete as it can be made, and to stimulate our city authorities, in the presence of a great danger, to the most urgent efforts toward clean streets and clean, well-ventilated tenements. Still the foe is so insidious that with all the resources at our command, we may not be able to stay its progress. Once introduced into our larger cities, the strictest quarantine could hardly prevent its following the great lines of travel into distant towns and cities. The health boards and improvement companies now being established in so many small villages, are doing an excellent work in directing the attention of all the people to the necessities of cleanliness, abundant ventilation, healthy food and beautiful surroundings. In those villages where these associations have not been formed, now will be an excellent time for physician to get them into good working condition. They will not only help to free the country from the causes of epidemics, but educate the people up to higher and more beautiful lives.

THE COMMON PLATFORM.

The *Therapeutic Gazette* says that "a homœopath is ruled by his dogma, and when he yields the point that the dogma is not universally applicable as a guide to therapeutics, he ceases to be a homœopath." If this is the case there are very few homœopaths in the world at present! We know of none who claim that the principle of *similars* is applicable beyond its own sphere! We have always been of the opinion that the title was improper, delusive, and its use in bad taste, to say the least.

We are as confident as we can be of anything, that many use the term from mercenary motives, and that it is in many instances only a trade-mark!

The writer, many years since, said to a then leading homœopathic physician, "do you consider it important to have the distinctive title appear on your sign?" his reply was that "it brings business, and I would advise every beginner, at least, to do likewise." The writer answered, that if getting practice depended upon such a proceeding he would never have it, as it was a violation of his views of good taste.

During the time in which we have publicly advo-

cated dropping the sectarian name we have discussed the subject with many, and the general opinion has been that they would lose practice by so doing. With this fact in view, how can we reach any other conclusion than that the title is retained for the purposes of business?

From the point from which we view the matter, we cannot do otherwise than to decline the appellation for ourselves, and to use our influence to induce others to do likewise.

As to the public, there is no difficulty, for it will soon find out the mode of practice adopted by any practitioner, and when the general profession recognizes that the action of a remedy depends upon the size of the dose in which it is administered, there will be no opportunity for sects, as all will be as nearly agreed as is possible for human beings to become. We say then to those who have for any reason dubbed themselves homœopaths, to stop using the title, and continue to practice as experience and their own consciences may dictate. Then they will learn when and how to use large doses as well as small ones.

To those who have been in the habit of using drugs only in large doses we say, go on with your test of "small and frequently-repeated doses," and it will lead you to reliable indications for the employment of the varying dose so necessary to an intelligent practice of medicine to-day. Then, when all practitioners have learned the various uses to which drugs will respond, we shall hear nothing more of "paths" or sects of any kind, and it is to that end that we shall continue to labor.

THE CHOLERA AND KOCH'S RESEARCHES.

THE recent outbreak of cholera in Toulon and Marseilles, and the indications of its spread, have turned the attention of the whole world upon the German Cholera Commission which has been working so industriously in Alexandria and Calcutta, under the leadership of Koch. Koch was chosen by the German government as especially fitted to carry on these investigations. He had shown himself an expert in microscopical *technique*, and had startled the medical world by the *bacillus tuberculosis*. He possessed that wonderful industry and patience which characterize the scientific worker, and which have placed Germany in the van of scientific progress.

The nature of the cholera poison has been one of the great questions in medicine. The fatality of the disease, its course and wide geographical distribution, and power of resisting elements destructive to other epidemic influences, have made it the subject of much thought and research.

That the cause of cholera lay in a micro-organism has been gaining ground step by step with the development of the germ-theory of diseases. It explains the phenomena of the disease better than any other theory. It gives us something tangible to fight, and does not overwhelm the mind like "an atmospheric influence," of which we can form no conception.

Some time ago Koch examined some post-mortem cholera specimens sent to Berlin from India, and found certain bacteria, but whether they were the cholera germ or the germs of decomposition it was impossible to say, so that nothing was gained.

Koch and his commission reached Alexandria toward the close of the epidemic there, and began a series of observations and experiments to discover the cause of the disease, if possible, and find some method or methods for its prevention and cure.

For more material the commission went to Calcutta, where they had ample opportunity to carry out the most approved methods of germ cultivation and microscopical examination. From time to time Koch has sent to Berlin a brief report of their labors, and now the sixth and last report has appeared, giving the final result of their Indian experience.

The commission believe that they have discovered the specific germ producing cholera. The germ is found to be a bacillus confined to the intestines of the cholera patient. It is described as slightly curved like a comma, or even more so, in the form of a semicircle. In the pure cultivations of these comma-bacilli, S-formed figures arise, and more or less long slight wavy lines made up of two or a large number of these bacilli, which by continued increase have remained connected. They possess powers of locomotion when cultivated in gelatin, and form colorless colonies, looking like very brilliant little glass particles. They gradually liquefy the gelatin and spread out to a considerable extent. Twenty-two cholera bodies and seventeen cholera patients have been carefully examined, and for comparison, twenty-eight other bodies dead from other causes. In none of the latter were the peculiar comma-bacilli found. Knowing that arsenical poisoning produced a condition resembling cholera, an animal was killed by arsenic and the digestive organs examined for the comma-bacillus, but with negative results.

The significant facts pointing to the comma-bacillus as the cause of the diserse are:

1. Its presence only in the bowels. (It was twice found in the vomit, and then only when alkaline, and showing the presence of the contents of the upper bowel.)

2. Its history in the bowels. In the first evacuations after the attack, or as long as they have any form, very few bacilli are present. The watery, odorless evacuations which follow, on the contrary, contain the bacilli in great numbers, while at the same time all other forms disappear almost entirely, so that at this stage the cholera bacilli are cultivated practically alone in the bowels. When the attack lessens and the discharges are again fæcal the comma-bacilli gradually disappear, and after the convalescence are no longer to be found.

All attempts, however, to inoculate the lower animals with the cultivation, have failed, but as there is no good evidence that animals are attacked with cholera, these negative results prove nothing. The examination of linen soiled by the cholera discharges showed rapid development of the bacilli under moisture, and this explains the common occurrence of infection from the washing of the clothes and bedding of cholera patients. On drying the bacilli they rapidly die, showing much less resistance in this respect than the other micro-organisms. All life and activity ceased after three hours' drying.

It was further found that they developed only in alkaline solutions, and that any small amount of free acid checked their growth.

The examination of the storage basins or tanks used for washing and drinking purposes, showed the presence of the bacilli, and the most probable seat of the cholera infection and communication.

Koch's investigations seem most conclusive, and apparently leave little to be desired, and yet they must be received with caution. They must be repeated and confirmed by Koch and others, and the results obtained practically applied in the prevention of the disease before the question can be regarded as settled.

In the new outbreak of the cholera in France, Koch will be enabled to repeat his Indian observations, and if they tally, they will have an increased importance.

The discovery of the source of the bacilli and their ways of communication, the destructive influence of the drying process and a free acid, will, if found to be true, prove valuable methods of disinfection and prevention. It is to be hoped that in Koch's germicide experiments now being instituted in France, this much-sought disinfection and prevention may be obtained.

The cholera in France, even with the ocean between us, threatens our own land, and unless our quarantine and disinfection measures are prompt and efficient we shall have this Indian scourge again at our doors.

Granting that Koch's observations are correct, the question of treatment remains about the same. The germicide treatment, which seemed to offer such promising results, has fallen far short of the expectations of its followers; at least in the treatment of other diseases recognized as bacterial, all attempts to destroy the micro-organisms in the blood have met with failure. We can kill germs in a local sore or wound and prevent their further progress, but to destroy them after the blood becomes loaded with them is a much more difficult problem. We can easily disinfect a slop pail, but we cannot treat the blood of a collapsed patient in the same way. The principle may be correct, but our methods so far fail us.

Thus the treatment of cholera by the old school, despite our better knowledge of its etiology and pathology, has not changed. Opium in one form or another, nitrate of silver, and perhaps sulphuric acid, constitute their main reliance.

The new school has introduced five potent remedies: arsenic, camphor, carbo vegetabilis, cuprum, and veratrum album. It behooves us, when the opportunity arrives, to test fully the efficiency of these drugs. If they fail us we can still join the majority. It has been stated that cholera cannot develop where there is any considerable amount of ozone in the atmosphere, as shown by experiments in frontier life in the army.

If this is the case, the subject of ozone should receive our careful consideration.

THE NATIONAL BOARD OF HEALTH AND THE MARINE HOSPITAL SERVICE.

We have before us three pamphlets from the National Board of Health in support of House Bill 2,785, forty-eighth Congress, first session, for the protection of the public health, and in refutation of certain charges made against the Board by the Supervising Surgeon-General of the Marine Hospital Service, Dr. Hamilton. As the facts in the case may prove of interest to our readers, we shall briefly state the charges made by Dr. Hamilton, and the Board's answers to these charges.

The National Board of Health was created by an Act of Congress, approved March 3, 1879, without limitation, entitled "An act to prevent the introduction of contagious and infectious diseases into the United States, and to establish the National Board of Health." It was the result of the untiring efforts of many sanitarians and public health officials, who had long seen the necessity for a deliberative and representative body of men to settle questions of national and international quarantine and sanitary science, and to whom local and State boards of health could turn in times of need and high pressure. The great yellow-fever epidemic of 1878 brought matters to a head, and with the hearty endorsement and support of the American Public Health Association, a bill was passed establishing a National Board of Health composed of seven members appointed by the President and Senate, and four members, *ex officio*, one from each of the departments, viz., the Medical Department of the Navy, the Medical Department of the Army, the Marine Hospital Service, and the Department of Justice.

This Board was empowered "to investigate the causes and

methods of prevention of domestic pestilences, widespread among the States and Territories, and aid local authorities in their suppression; second, to prevent the introduction of foreign pestilences into the country, and their spread from one State into another, by co-ordinating the operations of State boards, and co-operating with them; third, to examine and determine public health questions of international importance."

The constitution and functions of this Board have always seemed to us admirable. The bill bears on its face careful legislation, it is composed of representative men, and its whole spirit is in keeping with our institutions.

In the yellow fever epidemic in Memphis and other points or the Mississippi Valley, in 1879, the Board had ample opportunity to show its efficiency, and the local health boards and municipal authorities all bear testimony to the good work done. The years 1880 and 1881 were free from yellow fever in this country, and this immunity seems at least partly due to the vigilance of the National Board.

In 1882 Congress appropriated only $50,000 to be expended by the Board, inadequate to fully meet the demands of the yellow-fever epidemics in Pensacola and Brownsville. The Board maintained its system of inspection and refuge stations, and especially assisted the local authorities of Pensacola. In 1883 Congress appropriated only $10,000 for pay and expenses of its members, and failed to continue the act of June, 1879. This is an outline of its quarantine and aid work.

Like all new institutions, it has had to struggle hard for its life. Its establishment and the important powers vested in it called forth no little jealousy and antagonism from the Marine Hospital Service, at whose head stands the Supervising Surgeon-General, Dr. Hamilton. This gentleman, it seems, has privately circulated certain charges against the Board when its members were not present to reply, and instigated certain paragraphs in the daily press calculated to seriously injure the Board.

These charges, we think, have been satisfactorily answered by the Board. They are briefly these:

Dr. Hamilton stated that the Board paid $5,000 for the hospital barge Selden, which he represented as a rotten canal boat. The sum actually paid was $2,500, and judges of such matters regarded the amount as a reasonable one. She proved herself efficient for the services intended, and was finally wrecked through the negligence of those in charge after the transfer of the vessel to the Marine Hospital Service.

Dr. Hamilton further stated that the Mississippi Sanitary Flotilla was worthless when he had it taken down to New Orleans. This flotilla was in service three years below Memphis in preserving commercial intercourse between New Orleans and the river cities, and in guarding the interior from the yellow fever from New Orleans. The Board has the best testimony to the efficiency of these barges and launches from the authorities of Memphis and the Board of Health of Shelby County.

The Board was also called to account for purchasing the patrol hospital boat, the Benner, and for the sinking of the launches. The Benner was a necessity, and the accidents to the two launches might have happened to any one.

The Board was charged with culpable extravagance in giving Dr. Verdi $300 for an essay on the diseases of the lower animals. Dr. Verdi was paid a per diem of $10, in accordance with the law of March 3, 1879, with which the Board had nothing to do. Dr. Verdi was engaged thirty days on this work, and received accordingly $300.

The Board was again censured for employing Col. Waring to write concerning sewer traps. Col. Waring has himself fully answered this charge in his admirable reply. He writes:

"I made that investigation in a purely scientific spirit, for the benefit of the public and my own reputation only, *and entirely without compensation.*"

Hints that certain prominent employés of the Board had but a selfish interest in it can have no credence when it is known that the late Dr. Elisha Harris of New York, John H. Rauch of Illinois, Wirt Johnson of Mississippi, and Prof. Kedzie of Mich., were the ones chiefly referred to.

Against the charge that the Board had not the support of the medical men of the country, it can point to the endorsements of twenty-seven associated bodies, headed by the leading medical societies of the country, such as the New York Academy of Medicine, and the N. Y. County Medical Society.

Dr. Hamilton further wished to show that the members of the Board were not in full accord, and that some, like himself, considered the Marine Hospital Service as the only proper executive of a national quarantine. A letter from Dr. Stephen Smith, the Vice-President of the Board, was adduced in support of this assertion. Dr. Smith has fully answered this charge by showing that the letter was written at a time when the National Board of Health's interests were in jeopardy from the efforts of the Marine Hospital Service to gain control of the national quarantine, and to ascertain the possibility of a compromise, where the powers of this department would be divided, or where, in case the National Board of Health should have to transfer the quarantine work, it might still retain its other powers. This was Dr. Woodward's idea. Dr. Smith shows that strictly speaking the Marine Hospital Service had only to do with the care and cure of sick sailors suffering from diseases permitting their admittance into a general hospital, and that he regarded quarantine work and the prevention of pestilences as properly belonging to the National Board of Health.

Dr. Smart was charged with packing the Public Health Association, at its Indianapolis meeting, to secure favorable action toward the Board. Dr. Smart's move was simply one of self-defense, to protect the Board against the efforts of the Marine Hospital Service to obtain control of the national quarantine. There was no underhand work.

Dr. Smart was further charged with writing to those inimical to the Marine Hospital Service, during the Brownville epidemic, to ferret out flaws in its administration. On the contrary, the mayor and the daily press testified, unsought, to the efficiency of the National Board, and to "the utter inefficiency" of the Marine Hospital Service.

It was argued that since the Board of Health of Pensacola was a *protégé* of the National Board, the latter was responsible for the introduction of yellow fever into that city. This local board was no more a *protégé* than hundreds of other local boards, and when yellow fever broke out the National Board aided it as far as in it lay. They furnished disinfectants from stock remaining on hand after the Memphis epidemic, and paid $9,100 for nurses for the sick, on vouchers giving the name of each person employed, the period of service, and rate of compensation, and sworn to by the Secretary of the Pensacola Board.

And finally, it was charged that the appropriation for the local board was a corruption fund, and that those favored by money should make a return by a hearty support of the National Board. Dr. Hamilton based this charge upon the assertion that a requisition was made upon the National Board for $2,000, which was distributed among its friends. The Board absolutely denies the charge, and points to its books for proof, where all expenditures are vouched for.

To our mind, the National Board has fully answered the

charges brought against it. They were plainly the outcome of efforts of the Marine Hospital Service to obtain control of the national quarantine.

There is much in the National Board of Health to commend it. It had a diversified membership, men chosen from different parts of the country, fully conversant with the diseases peculiar to their sections of the United States. It had representatives from the medical departments of the army and navy, from the Marine Hospital Service, and from the Department of Justice. It was thus far superior to a bureau with a single head. As a result of its deliberations, the General Government could offer the following scheme of work:

1. The method of securing a good sanitary condition of ships.

2. The projected plan of international notification of the sanitary condition of foreign ports.

3. The system of refuge stations for infected vessels bound to ports of the United States.

4. The scheme of sanitary inspection of steamboats and railroad cars, to secure such cleanliness and freedom from infection as will interrupt travel and traffic to the least possible extent during the prevalence of the epidemic.

5. The system of securing the vaccination of emigrants at foreign ports and on shipboard.

6. The system of railroad inspection of emigrants, to prevent the spread of small-pox.

That this body should possess the executive of a national quarantine seems in every way advisable. No sanitary organization is so well adapted to it.

The Marine Hospital Service, on the contrary, has but one medical officer at its head, and its employés are engaged by the Secretary of the Treasury, and employed for a single specific duty—the care of sick sailors. Their services are paid for by the sailors, the Government merely making up deficiencies in supplies, hospitals, etc. It has no facilities for meeting the invasion of disease, but curative ones. For quarantine work it must use other agents and other appliances, as it has used, during the past year, the agents, appliances, and methods established by the National Board of Health.

This opposition to the National Board has set on foot a new bill entitled "A Bill to Protect the Public Health." It aims to abolish the present Board, and to establish a new board, to be styled "The United States Board of Health." It is to be composed of the Surgeon-General of the United States Army, the Surgeon-General of the United States Navy, and the Supervising Surgeon-General of the Marine Hospital Service.

In plan of organization it cannot be compared to the present Board, and it is in no way qualified to do the work which the National Board has already shown itself capable of.

We trust that the present Board will still live, and that Congress, by proper appropriations, will enable it to carry out its admirable scheme of work.

We print elsewhere the "Rules of Revision," as adopted by the American Institute of Medicine—the title by which this organization should be known—as reported by Dr. Dake's Committee on Materia Medica. It will be observed that the fifth "rule" excludes symptoms not observed by two or more experimenters, a precaution which the importance of the undertaking certainly justifies, and will not only sift out many unimportant symptoms, but will serve to increase confidence in the remainder. The tenth "rule" excludes symptoms attributed to attenuations above the twelfth decimal, and why not? as drugs within that limit have or will undoubtedly produce those characteristic effects which will enabled us to determine the selection, with much less trouble than formerly

There is one point that we hope this committee will insist upon in its work, viz: *that no item shall be adopted, to which each individual member cannot agree!* It is fair to presume that the committee is constituted of men who can lose sight of all else but *unquestionable truth*, and unless this is the case, the effort will prove a failure, as it should! We shall watch with no little interest for the result.

BIBLIOGRAPHICAL.

STUDENTS' MANUAL OF ELECTRO-THERAPEUTICS. By R. W. Amidon, A.M., M.D. New York. G. P. Putnam's Sons.

The aim of the writer in this little pocket volume has been to present that amount of the subject of electro-physics, necessary to the proper understanding of the construction and use of medical batteries; to point out the commoner gross physiological effects of electricity, to outline the methods of electro-diagnosis, and to determine the kind of electricity and its mode of application indicated in different pathological states. The author has performed his work in an eminently painstaking, practical and scientific manner, giving us a work suggestive, and full of just that information which the student and practitioner desire.

VACCINOSIS AND ITS CURE BY THUJA; WITH REMARKS ON HOMŒOPROPHYLAXIS. By J. Compton Burnett, M.D., London. The Homœopathic Publishing Company, 1884. Pp. 130, 16mo.

The object of this little volume, which is in the characteristic style of the author, is not to discuss the *pros* and *cons* of vaccination, but to show "that there exists a diseased state of the constitution, which is engendered by the vaccinial virus, (that so-called lymph) which state he proposes to call vaccinosis," and that thuja is a remedy in the affection, as shown by his clinical cases. The observations are suggestive and worthy a spare moment.

RUDDOCK'S FAMILY DOCTOR. Being a reprint in one volume of Dr. Ruddock's "Vade Mecum," "Diseases of Women," "Diseases of Infants and Children," and "Essentials of Diet," with Notes and Additional Chapters. By James E. Gross, M.D., Member of the American Institute of Homœopathy, etc. Illustrated. Chicago. Gross & Dell bridge, 1884. Pp. 734.

The work done by the late Dr. Ruddock is too well-known to the profession, to require comment at our hands at present. All we need say of this work is, that it is most complete, and will prove of service to those who are well up in the art of prescribing. Dr. Gross' additions bring it down to date, and will be found of great value.

AUSCULTATION, PERCUSSION AND URINALYSIS. An Epitome of the Physical Signs of the Heart, Lungs, Liver, Kidneys, and Spleen in Health and Disease. Edited by C. Henri Leonard, A.M., M.D. The Illustrated Medical Journal Co., Detroit, Michigan.

This little work, which can be carried in the pocket, presents the main points of the subjects treated, in a clear and concise manner, and for ready reference will prove of great value, not only to the student but to the physician. We have seldom seen so much information so well arranged and presented in so compact a form.

THE CENTURY MAGAZINE *for August*, besides having its usual variety of interesting articles, devotes considerable space to what it justly terms "Business Gambling," which it

considers no better than other games of chance. As this sort of enterprise is the source of great mental strain, and consequently a factor in the production of various mental lesions which result disastrously, the subject is worthy the study of the profession at large, as well as the alienist, with a view to curtailing this dangerous business to the minimum.

NORTH AMERICAN REVIEW.—The August number contains a symposium on "Prohibition and Persuasion," by the well known writers, Neal Dow and Dr. Dio Lewis. Mr. Dow continues his threadbare argument in favor of prohibition, in a short epistle, while Dr. Lewis gives what seems to us a masterly and lengthy article in favor of persuasion. We could wish that these articles might have a wide reading.

Richard A. Proctor also contributes a most interesting article on the "Origin of Comets," and there are many other articles of the usual character.

CORRESPONDENCE.

THE ALCOHOL QUESTION IN THE AMERICAN INSTITUTE OF HOMŒOPATHY.

THE devil quoted Genesis
Like any learned clerk,
How "Noah and the creeping things
Went up into the Ark."

Why this Coleridgian rhyme should flash into my memory I do not know, unless it be that "Deer Park" furnishes a supplementary rhyme to "the ark." Perhaps, too, "the creeping things" suggested an analogy—but it won't do to mention *that!* Alas! in this world of sin and misery one has to be careful and cunning or one comes to grief: *experto crede!* However, it is a matter of history that *The* American Institute of Homœopathy lately convened at Deer Park, on which occasion, as usual, the American eagle screamed with delight and called the universe to witness.

On the said occasion a certain studious physician—one sadly out of place in the aforesaid A. I. of H.—read a paper on sundry therapeutical applications of alcohol. As my information goes, one solitary physician—himself a thinker, and equally out of place, as aforesaid—applauded; the rest, the "great unwashed" of American homœopathy—*virtuously* condemned, and found an appropriate vent for their outraged "morality" in an ex-president of even the A. I. of H. "A furiously denunciatory speech against the use of alcohol in any shape or manner," says my informant. "Furthermore," continues my informant, "he drew such a harrowing picture of the awful effects of alcohol that his enraptured hearers first applauded to the skies, and afterward adjourned to the bar-room to strengthen their nerves." 'Twas ever thus; the A. I. of H. is nothing if not consistent. Its orgies are famous, *and* its "morality" is colossal! [For the truth of which the undersigned is ready to furnish as references some of the most distinguished and "honored" members of the A. I. of H.]

Of course, the "moral" influence of the A. I. of H. must be staked on the winning card—*that* is the great *desideratum*, the *winning* card. But that even the "colossal morality" of the A. I. of H. can discern the "winning card" is a sore question. If my informant is correct the A. I. of H. *has bet on a blank!*

The consequences of this misadventure are far-reaching, for the A. I. of H., aping its betters, issues an annual volume, and thus the position of the A. I. of H. on the *Alcohol Question* becomes known to men of true scientific attainments, and then the A. I. of H. is known as the blustering braggart that it is.

The piddling pretences that control it have forgotten that there is a High Court of Appeal above and beyond its jurisdiction—even a court capable of "reversal with costs"—a court wherein the verdict of every "packed jury" is shattered by the lightnings of Heaven.

"The A. I. of H. does not do business in *that* court." Very true, my friend, but, as God liveth, that very court "does the business" for the A. I. of H.

According to my informant, the offending paper was produced by an alienist, a comparatively "young" man, but one whose record is a proud testimonial to the quality of his cerebral lobes. His paper, very naturally, referred to the uses of alcohol in some profound lesions of the nervous system.

Well, he is (fitly) attacked by one who has been advertised as a "specialist" in diseases of the chest—the "wind" organs of the human race. Prof. Æolus declares "against the use of alcohol in any shape or manner."

Prof. Æolus is nothing if not a "homœopath." God save the mark! Now, did Prof. Æolus, specialist in the diseases of the "wind" of men, condemn alcohol as a "noxious" agent, as a "poison"? Recognizing it as a "poison" capable of producing certain pernicious effects, does he, as a "homœopath," fail to find a place for it (and a place for which there is no surrogate) in the treatment of disease? If such is the pitiful imbecility of Prof. Æolus, must the whole A. I. of H. go on record as having found a poison for which there is no use under the law of similars? I wonder if the "creeping things" that applauded to the echo ever dreamed what a sad "give away" there is in this.

Has alcohol produced *delirium potatorum*, and *ebriosorum*, and *paralysis agitans*, and *sclerosis* of the *liver*, of the *kidneys*, of the *brain*, of the *spinal cord?*" If so, is there not a "shape," and a "manner," and a place for it in disease? If not, Prof. Æolus, what is your *similia similibus curantur* but a sounding pretence, a cheap lie, a detestable trademark?

Dear A. I. of H., what coaxed *you* to *Deer* Park—does the thistle flourish there? That can hardly be. It isn't the deer that eats thistles! And yet, what but a thistle would tempt you?

O consistent A. I. of H., thy last "progress" was in the line of *material doses*, and here is alcohol calling for *use* (not abuse) in "material doses," and not a thistle-eater among you competent to use it (except for yourselves) "in any shape or manner." O self-stultifying A. I. of H.,

"Motley's the only wear!"

But we must credit Prof. Æolus and his much-applauding fellow "homœopaths" with not knowing that they were revealing their species; they probably cannot see that alcohol, in God's mysterious providence, is the *similimum* for some most profound diseases of the nervous system, although even they class these very diseases among the "evils" produced by alcohol. Still, why damn a clear-sighted alienist for *their* blindness?

Let the charitable curtain fall on the farce at Deer Park, and may oblivion find a friendly nook for even the long ears of the *dramatis personæ!*

My dear, much-astonished alienist, a word with thee: Any paper having its origin in front of the ears, when "read before *The* A. I. of H.," is

"Caviare to the general."

SAMUEL A. JONES.

ANN ARBOR, June 30, 1884.

OUR LONDON LETTER.

MESSRS. EDITORS :—The annual Congress of Homœopathic Practitioners is to be held this year in London. Owing to unforeseen difficulties in local arrangements, as it was found impossible to hold it this year at Cambridge as was first decided, and as the majority in favor of Cambridge over London at the last meeting was a very small one, London has been finally agreed on. This is as it should be. The London meetings have always been the best attended, for the good reason that there are more homœopathic practitioners in London than anywhere else, and also because London is so easily accessible. I hope we may see some visitors from your side of the water. It will be held during the third week in September.

The first thing the French appear to have imported from their new colony in China is an epidemic of cholera. The true Asiatic variety of cholera made its appearance at Toulon a few days ago, and now Marseilles is attacked. The sanitation of French towns, and especially southern French towns, is notoriously bad, so it will be difficult to stop the spread of the disease. Paris is greatly alarmed, but London is quite tranquil for the present. It is a noteworthy fact that neither Koch nor Pasteur, nor any of the scientists who have lately been disporting themselves in the East, have any suggestions to make or remedy to propose. Pasteur is probably too busy making dogs, rabbits and monkeys mad to think of cholera. His latest "glorious discovery," the cure for rabies, appears to have been announced a little prematurely—*he hasn't got one.* He has had a large number of offers from dog-bitten persons to be inoculated with his "protective," but the great discoverer has declined all with thanks; he has to repeat his experiments *ad infinitum* on all manner of animals before he will have the courage to experiment on human subjects. It appears that the poison of rabies does not keep its "virtues" many days, so that in order to keep a constant supply of "protective" on hand, it will be necessary for every town to possess a "rabies propagating institute," where mad dogs and mad monkeys may always be had! (The monkeys are required as a mitigating element, as the virus loses power in being passed through them.) And all this to save us from the millionth chance of dying of hydrophobia!

Perhaps M. Pasteur will next turn his attention to seasickness. As there seems little chance of the Channel Tunnel being made in the present generation, if he could only discover a protective against *mal de mer* he would confer a real boon on a large number of his and our countrymen. He would no doubt be able to find that a microbe was at the bottom of this distressing malady, and by a little judicious "cultivating" the great scientist would surely be able to convert it into a "vaccine," which would render a sea voyage to the "protected" the most appetizing thing in the world!

The *Medical Record* is responsible for an account of a new disease met with in Siberia, and known to the Russians as miryachit, in which the afflicted person is obliged to imitate all he hears or sees. One day the captain of a steamer ran suddenly up to the steward of the vessel, who suffered from the disease, clapping his hands at the same time, and accidently slipped and fell on the deck. Without having been touched, the steward instantly clapped his hands and shouted, then, in helpless imitation, he too feel, as hard and almost precisely in the same manner as the captain. The disease has been met with also in Java, where it is known as "lata." Perhaps it is an extreme exaggeration of what some people consider the normal state of the "Heathen Chinee," who is certainly strong in imitation. Yours fraternally,

JOHN H. CLARKE, M. D.

15 St. George's Terrace, Gloucester Road, London, S. W., June 30, 1884.

SOCIETY REPORTS.

MATERIA MEDICA REVISION.

AT the late meeting of the American Institute of Homœopathy, at Deer Park, the Bureau of Materia Medica, which, under the chairmanship of Dr. J. P. Dake, has been for two years at work on plans for materia medica revision, reported a plan and set of rules, which were fully adopted after an earnest discussion.

The plan and most of the rules had been considered and approved by the British Homœopathic Society, whose representative was present at Deer Park, and in conference with the Bureau of Materia Medica while the rules were being definitely formulated.

The plan contemplates the issue of the work in parts of 160 pages each, four parts forming a volume.

By the urgency of the great materia medica writers of the British Society, Hughes, Dudgeon, Drysdale and Pope, the American Bureau changed its purpose from an abbreviated edition to a complete display of all drug pathogeneses.

The following are the rules formulated by the Bureau, and adopted by an almost unanimous vote, in the American Institute :

I. Give the scientific name and synonyms of each article.

II. Give the natural order of each article.

III. Give a narrative of all provings, stating the symptoms in the order of their occurrence, with such condensation as completeness allows.

IV. Give, in presenting virulent drugs, such selected case as may, properly, illustrate the various forms of poisoning by them, condensed as before.

V. Include, as a rule, no drug that has not shown pathogenetic power in two or more persons.

VI. Trace back all versions and copies to their originals, and verify, correct or reproduce therefrom.

VII. Give the results of experiments on the lower animals, where of value, generally in abstract.

VIII. Include in the narrative, as a rule, no symptoms reported as occurring from a drug administered to the sick.

IX. Include no symptoms reported as occurring in the persons of provers under the influence of other drugs, or when in conditions or circumstances not allowing a clear reflection of the pathogenetic influence of the article under consideration.

X. Include symptoms reported as coming from attenuations above the twelfth decimal, only when in accord with symptoms from attenuations below.

XI. Omit the contributions of Hahnemann and his fellow-provers to the Materia Medica Pura and the Chronic Diseases, which are already accessible to the profession, and of which we do not possess the day-books.

The Bureau also made the following recommendations :

1. That the American Institute and the British Society adopt the plan and rules submitted.

2. That, jointly, the two societies elect Dr. Richard Hughes, of England, as the editor of the proposed work.

3. That each society elects three members to constitute a joint consultation committee, the editor being chairman of the same.

4. That each society authorize a subscription for one copy of the first year's issue for each of her members, paying therefor the actual cost.

THE MEDICAL SOCIETY OF NORTHERN NEW YORK.

PART II.

SURGERY.

PELVIC ABSCESS.

DR. H. S. PAINE related the history of a case of pelvic abscess, a result of cellulitis, which he had recently treated; also described the operations required for its permanent closure.

The patient, a woman about thirty years of age, small, slender in form, and not well nourished, stated that she had been suffering two years from a constant purulent discharge, disagreeably offensive in odor, and at times so acrid as to produce almost unbearable external soreness, itching and irritation.

The patient further stated that pregnancy had occurred and

continued four months, during which time the discharge ceased altogether; and that after a miscarriage, which occurred without any known cause, the abscess had resumed its original features; in fact the discharge had increased in quantity, and was of a more offensive odor.

A digital examination, the patient standing, showed a pouch, in the form of an inverted cone, occupying the left upper surface of the vagina, evidently containing fluid, and crowding the uterus back and to the right side.

An examination with a speculum revealed the presence of an abundant muco-purulent discharge from the os; also a tortuous but unobstructed condition of the uterine canal.

It was also apparent that the drain occasioned by the excessive discharge, the frequent chills, the fever and attendant prostration, from which she was a constant sufferer, were rapidly reducing the patient's strength. Moreover, the presence of so large an abscess rendered the patient constantly liable to an extension to adjacent parts, to peritoneal inflammation, and even to all the dangers involved in septicæmia.

In view of these features of the case, the usual operation for emptying the sac, cleansing and gradually closing it by the application of various washes, was proposed, and was acceded to by the patient.

Operation.—The first operation consisted of the insertion of the needle of an ordinary hypodermic syringe. On penetrating the tissue somewhat less than half an inch, the cavity was reached, and discharge of a drop or two of pus flowed through the needle. The opening being enlarged, half a cup of thick and very offensive pus was withdrawn.

Frequent injections of hot water, solutions of *carbolic acid*, *hydrastis* or *listerine* were made.

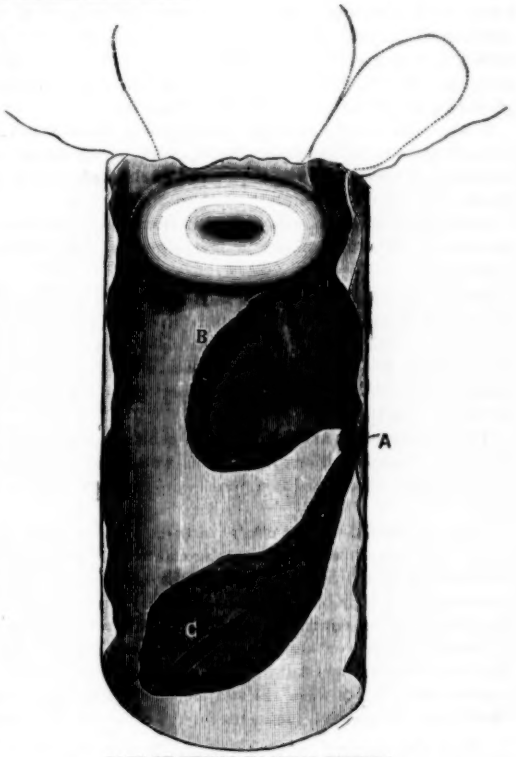
In the course of two or three weeks the cavity seemed to be nearly closed, when, on making careful explorations in order to carry the washes to every part of the sac, through a small opening another large sinus was discovered, located behind the left lateral wall of the vagina, and extending downward and forward nearly to the vulva.

To thoroughly empty and cleanse this cavity, another opening, at its most dependent point, was made, sufficient in size to admit a soft rubber catheter. The catheter passed into one and out at the other opening, the two ends remaining outside the body. Previously to the insertion of the catheter an oblong piece was cut out of one side, at its middle, leaving an opening, through which when in position, injections of the various washes were discharged into the middle of the sinus.

This cavity also was closed in the course of about three weeks. The distance, at first rather less than two inches between the two openings, gradually diminished, until a small portion of tissue only remained, which, on being divided, released the rubber catheter, and left a cavity, irregular in outline, of nearly an inch in diameter, and deep enough to bury a good-sized horse-chestnut.

Subsequent minute examinations of this cavity showed no evidence of the presence of any other sinuses or fistulæ. The diseased and pus secreting surfaces seemed to be effectually healed. On making a digital examination one month later it was found that the cavity had been filled, and but for slight hardness and rigidity of the left wall of the vagina, there were no evidences of any unhealthy tissues remaining.

The accompanying diagram indicates the size and relative position of the two principal sinuses, and the points at which the openings were made. *A* represents the location of the opening made at the first operation; *B*, the relative position of the principal sinus, extending upward and forward along the side of the uterus; *C*, the incision made at the second operation, also the sac passing downward and forward nearly to the external meatus.



CASE OF VESICO-VAGINAL FISTULA.

Dr. H. S. Paine reported a minute description of a case of vesical fistula, for the closure of which he had recently operated.

The patient, a woman sixty years of age, large, stout frame, was confined twelve years previously, the labor being an unusually severe one, lasting two or three days.

The patient suffered subsequently from severe peritonitis, from which, for a number of weeks, recovery seemed quite improbable. Convalescence, however, began and slowly progressed to final recovery, with the exception of the presence of the vesical fistula.

An examination, made at that time, showed that inflammation and ulceration had been sufficiently intense to destroy two-thirds of the vesical end of the urethra and the whole of the sphincter.

Condition of the Patient.—The condition of the patient was deplorable in the extreme. She was so feeble as to be able to do little else than cleanse the cloths required by the constant dribbling of urine.

The almost constant contact of the urine with the external parts produced an eczematous eruption, inflammation and thickening of the skin, the pricking, burning and itching of which was almost unbearable. Then, too, the stench about her person, arising from the cloths saturated with urine, soon render her presence indoors, especially in cold weather, exceedingly undesirable.

The patient had resided many years in a region of the State in which competent medical or surgical aid could not be obtained; she was at length, however, persuaded to come to Albany for the purpose of availing herself of such surgical skill as might be required.

At the first examination, an opening into the bladder, as large as a silver half dollar, was discovered. The opening was nearly circular in form, and its edges were made up of an exuberance of fungous tissue, irregular in outline, of an intensely dark red, even purple color, painfully sensitive to the slightest pressure, and which was constantly secreting a glairy, mucopurulent, and at times a sanguineous discharge.

It was also found that only one-third of the urethra remained, the vesical end of the distal portion being completely occluded, no urine evidently having passed through it in twelve years.

Moreover, the patient was suffering from indigestion and a decided bronchial irritation; in fact, a general inflammatory condition.

Preparation for the Operation.—It was at once manifest that a preparatory process must be entered upon and persevered in, probably several months, before a successful operation could be expected. Accordingly the patient was secured a comfortable room at the Albany Open-Door Mission, one of the charitable institutions of the city.

The patient was at once given a generous and supporting diet, and applications of the hot water vaginal douche, twenty or thirty minutes at a time, were made at least twice daily.

First Operation.—In the course of three or four weeks sufficient improvement was apparent to warrant, it was thought, the removal of the largest fungous protuberance. A ligature was applied as tightly as seemed necessary, and on the third day thereafter its entire removal by excision was effected; a procedure which, on account of the recession of the ends of the blood vessels, was followed by sufficient hemorrhage not easily controlled, to warn the surgeon against too great haste in a resort to operative measures for the relief of the patient.

Dilatation of the Vaginal Canal.—The next step in the reparative process was the dividing of the cicatricial bands, as recommended by Emmet, and the introduction of a Sims' vaginal plug, for the purpose of distending the walls of the passage, in order that after the operation there would be sufficient loose tissue to enable the two edges of the fistula to approximate without over-stretching, thereby preventing the stitches from tearing out. Another object was, pressure upon the fungoid growths, with a view of promoting their absorption.

Second Operation—New Urethral Canal.—Another step in the work of preparation was the opening of a new passage into the bladder, to serve the purpose of a urethra when the vesical fistula was finally closed. To effect this, a trocar of medium size was passed into the proximal end of the urethra, the only part that still remained, and thence into the bladder three-fourths of an inch above the fistula. Into this a soft rubber catheter was passed and kept in position a few days; not long, however, on account of intense inflammation and fever which followed. After the withdrawal of the catheter the wound soon closed.

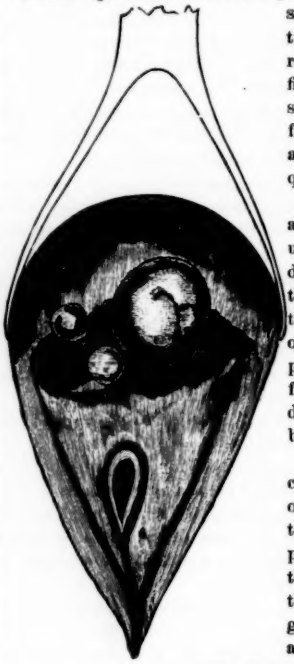
At the end of three weeks the operation was repeated, and, on account of surgical fever, it seemed several times as if it would have to be given up, but it was maintained; and to it I ascribe much of the success of the subsequent operation, although there was a doubt, and still is, whether it will be provided with the protecting offices of a sphincter. It will, at least, prevent the constant dribbling of urine, with all its attendant discomforts.

Third Operation.—After the continued restorative influence of a warm and comfortable room, good food, entire rest, the stretching of the vaginal walls, and the daily use of the hot water vaginal douche for several months, so great a degree of improvement was found as to warrant a resort to the final operation.

Accordingly, with the assistance of Drs. Balch and Robinson, the operation for the closure of the fistula was performed. Three silver and four silk sutures were so inserted as to maintain the cut surfaces in apposition from side to side.

At the end of one week it was found that the whole course of the fistula was closed except at the point of greatest strain, where one of the stitches failed to keep the edges together, leaving a circular opening one-eighth of an inch in diameter.

Fourth Operation.—Another operation, for the closure of the small opening, was performed two weeks after the first. On removing the stitches, on the fifth day, it was found that a small fissure still remained, for the closure of which still another operation will be required.

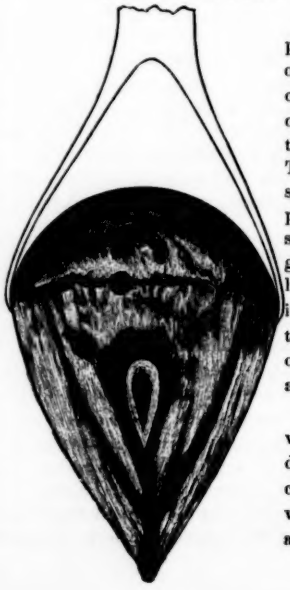


This patient will soon be able to return to her home under circumstances and conditions very different from those attending her advent to the city, and her last years of life will be those of comparative freedom from the form of bodily suffering and discomfort to which she has been so long subjected.

The accompanying wood-cuts represent the condition of the fistulous opening prior to treatment; also the appearance of the cicatrix after the first and second operations for closure; the diagram representing the parts as in Sim's position.

GYNÆCOLOGY.

UTILITY OF THE HOT-WATER DOUCHE.



Dr. H. M. Paine read a paper setting forth the utility of the prolonged application of hot water in the treatment of congestion and inflammation of the pelvic organs. The paper describes the symptoms and conditions present in these cases; also shows, on physiological grounds, the reasons why hot water exerts a powerful influence in controlling functional disturbance as well as organic lesions of the uterus and ovaries.

Dr. Paine also exhibited wood-cuts of an apparatus devised for conveniently and continuously applying hot water, the patient being in an easy recumbent position.

Symptoms of Uterine Congestion and Inflammation.—A very large proportion of patients suffering from disease of the pelvic organs experience, to a greater or less extent, a feeling of weight and heaviness at the lower part of the abdomen; a "dragging down feeling," as usually described, a soreness and feeling of fullness in the same locality; pain and aching in the back, which is nearly always a constant and the most persistent symptom, the pain often extending upward the whole length of the spine to the head, and downward to the knees and feet.

There is also, in many cases, a decided increase of leucorrhœal discharge, which is often very acrid and irritating; also, at times, pain and soreness of the rectum, particularly during the movement of the bowels, frequently resulting in piles; also, more or less irritability of the bladder, causing frequent and painful discharges of urine.

These symptoms are always aggravated by exercise, walking, riding, standing, or even sitting down, the only relief being obtained from a recumbent position. They are indicative of a condition which nearly always supervenes upon uterine disorder, viz., chronic engorgement of the pelvic organs, the seat of the disease usually being the uterus and the ovaries.

On an examination, the parts are found to be highly sensitive and sore, the uterus and its appendages enlarged, tumefied, hardened, and very frequently displaced, by being either too low down in the passage (prolapsus), or tilted forward, (anteversion) causing irritable bladder, or backward, (retroversion) obstructing the circulation in the hemorrhoidal veins, usually resulting in piles and the formation of pile tumors.

Usually this condition of profound chronic engorgement of the womb has been allowed to go on unrelieved until the circulation of blood in the substance of the organ has become very sluggish, a result of constant distension to such an extent in some cases, as to permanently disable the blood vessels, so to speak, by paralyzing them and rendering them unable to contract upon the blood with which they are surcharged. The blood is forced into them, and remains and accumulates, because the minute vessels have no power to contract upon it and crowd it out. Their tone and elasticity are gone, hence the engorgement, hardness, and permanent enlargement of the organ.

Measures for Relieving the Congestion.—It is evident that the efforts on the part of the physician toward relieving this distressing condition, must be made with a view of (1st), diminishing the flow of blood to the part by cutting off a portion of the supply; and (2d), enabling the distended blood vessels to empty themselves in order to awaken sufficient contractile power to again contract normally on their contents, thereby preventing a recurrence of the disease.

The first thing therefore to be secured, is cutting off the supply of blood to the part, or at least to diminish the quantity in order to prevent an accumulation in the over-distended vessels.

This is accomplished measurably by relieving the womb of the pressure of the superincumbent organs, the abdominal viscera, by requiring the patient to maintain one or more hours daily, a recumbent position. In corpulent persons suitable external abdominal supporters and bandages are particularly useful. This simple measure alone, however, is seldom sufficiently effective. It may, if persistently resorted to, enable the blood vessels to regain their elasticity, but it is usually too slow a process. Something more than the natural efforts of the system is required. Other measures are, the application of healing and soothing medicines in the form of lotions and cerates to the neck of the womb, and also into its cavity; the stimulating and absorbing qualities of electricity; and the regular and frequent application of hot water.

The Abnormal condition Explained, and the Utility of the Hot-Water Douche Described.—The value of the curative and resolvent properties of hot water has not been fully estimated, chiefly, we may fairly conclude, because its proper mode of application has not been resorted to on account of the difficulties hedging about its thorough administration.

In order that the patient may reap the full benefit of this simple operation, it is essential that she should intelligently comprehend the nature of the disease from which she is suffering, as well as the means to be used for its temporary mitigation or final removal.

The abnormal condition being an undue distention of the capillary vessels within and surrounding the pelvic organs, it is obvious that a standing or sitting posture effectually prevents a complete and easy flow of blood therein. While maintaining a sitting or upright posture the return of venous blood from the pelvis and lower extremeties is retarded by the force of gravity, as also by a portion of the weight of the intestines within the cavity of the abdomen. It will be perceived therefore, without further explanation that, in order to obtain the full benefit derivable from the use of hot water injections, the advantage of applying the fluid *while the patient maintains a recumbent posture constitutes the chief element of its successful application.* The advantages of this position can and ought always to be still further promoted by a considerable elevation of the hips.

This method of treatment has been very successfully made use of for many years past by Dr. T. A. Emmet, of New York.*

The following extracts describe the *processes* for its proper application; also set forth the *reasons* showing its physiological influences and advantages.

Methods of Application.—These are described as follows:—

"Hot water vaginal injections, of different degrees of temperature, according to the circumstances of the case, will prove an invaluable aid in the treatment of all conditions of uterine diseases. It is, therefore, of the greatest importance that they should be administered properly.

"When given in the upright or sitting position, the effect is merely to wash out the vagina, without otherwise exercising more than a very limited influence.

"Experience has shown that the full benefits of these injections can be obtained only by administering them while the patient is lying on the back, and that she cannot efficiently give them to herself. It is also necessary that her hips should be elevated, and the quantity of water used should not be less than half a gallon for each injection.

"A bed-pan of proper shape and size is indispensable to protect the clothing of the patient. The one known in the crockery shops as the English bed-pan, but now somewhat out of use, answers the purpose very well. For temporary use, the India-rubber inflated cushion bed-pan will answer, but it is liable to stick together from the effects of the hot water.

"The shovel-shaped French bed-pan, more in general use in the sick room, does not answer for this purpose, as it allows the clothing of the patient to become wet.

"When using the regular bed-pan, it is necessary to place the patient so far forward on it that her weight will not tilt it up. Or the handle, which is hollow, may be turned to one side and, with a piece of large India-rubber tubing stretched over it, the water be made to pass off into a receptacle placed

*"The Principles and Practice of Gynæcology," pages 51-54, and 118-124, edition of 1879.

long side of the bed. For use in my private hospital I have a this form of bed-pan made of copper, and instead of so large a handle, a small spout which can be kept closed when needed, by screwing on a cap. When a large injection is needed, the cap can be removed, and a small piece of tubing placed over the spout will carry off the water.

"The injection can be better given to the patient after she is undressed for the night, and in bed. She should be placed near the edge of the bed with the hips elevated as much as possible by the bed-pan, and a small pillow under her back, the lower limbs being flexed. Her body must be covered, to protect her from cold, and her position made perfectly comfortable. Whenever the bed is a soft one, for the purpose of keeping the hips elevated, a broad board should be placed under the pan, to prevent it from sinking into the bed from the weight of the patient.

"The vessel of hot water is placed on a chair by the bedside, and the nurse passes the nozzle of the syringe into the vagina, over the perinæum, directing it along the recto-vaginal wall until it has reached the posterior *cul-de-sac*.

"The water must be thrown in, at first, very carefully, until the vagina has become distended. * * * * At the completion of the injection, the vagina can be emptied by depressing the perinæum for a few seconds, with the finger on the nozzle of the syringe before withdrawing it, and as the bed-pan is removed a napkin should be placed against the vaginal outlet to absorb any water which may have been retained.

"When, from the force of circumstances, the injections cannot be thus administered, it is better to use a fountain or siphon syringe, than that the patient should attempt to give them herself. This mode, however, can only be regarded as a substitute, for it is never as efficacious. A steady stream is never as serviceable as the interrupted current from a Davidson's syringe. Hence it would seem as if, in addition to the heat of the water, the jet of the syringe acted as a stimulus to excite the bloodvessels to contraction. In either case the same elevated position of the hips is necessary."

The Physiological Influences and Advantages of the Hot Water Douche.—The *reasons* for resorting to the administration of hot water, also its physiological influences and advantages, are set forth as follows:

"From various causes, already cited, the veins of the pelvis become gradually over-stretched, and finally lose their tone to such an extent that almost a stasis of the blood takes place; at least, to such a degree that we may compare the circulation in the pelvis to that existing in a marsh, saturated by a stream which is of about equal capacity on entering and leaving it, but maintaining a condition approaching stagnation between the two points.

"As a consequence of this venous congestion we have increased size and weight of the organs, causing an augmented secretion. Whenever we are able to improve the general condition of a patient suffering from disease of the organs of generation, the local condition improves also, but only to a limited extent. Yet this increase of strength renders her better able to bear the constant drain set up by nature in efforts to relieve the congestion by an increase of the secretion."

The Tonicity of the Blood Vessels is to be Restored.—"But no permanent improvement can take place in the local condition, until tone has been restored to these vessels, so that the circulation may be as little impeded in the pelvis as in any other portion of the body. We may by rest, or by restoring the uterus to its proper position, lessen its size, and by the same means, aided by local applications, at length heal an erosion, as well as lessen the discharge from the uterine canal and vagina. But the case will relapse, and at the end of a few weeks or months, after the patient has begun to exercise, the original condition will have been reproduced. It is only by exciting reflex action that the nerves accompanying the vessels will cause their contraction, and, with increased action on their part, the necessary tonicity will be restored by improved nutrition. * * *

The Physiological Action of Heat is Contraction.—"Heat, unless at a temperature which would destroy the parts, does not act as promptly in causing this contraction as either electricity or cold. In fact its immediate effect is to cause relaxation, and to increase the congestion of the parts; but if its application be prolonged, reaction ensues, and contraction takes place; in other words, *the reaction from heat is contraction*.

"The capillaries are excited to increased action, and as they contract from the stimulus of the nerves the tonic effect extends to the coats of the larger vessels, their calibre in turn becomes lessened, and with this approach to healthy action, the congestion is diminished.

"The popular belief is that heat relaxes and increases the congestion of the parts, and such indeed is the case at first But a hot poultice is never applied with the object of increasing the congestion, but, as any 'old wife' would express it, to draw the 'fire,' or inflammation out; in other words it lessens the congestion by stimulating the blood-vessels to contract.

"That such is the effect, from the continued use of a poultice is familiar to every one, and is shown by the blanched and shriveled appearance of the tissues after its removal. The hands and arms of a washer-woman become swollen at first, from the increased flow of blood when in hot water, but the fact is quite as familiar that they afterwards become markedly shrivelled.

"To place the hands in cold water will at once cause the skin to shrivel, as the vessels are stimulated to contract, but we are all familiar with the fact that reaction promptly comes on, and a larger quantity of blood returns to the part than was driven out; the skin does not recover its natural appearance for hours, and when reaction does take place, by relaxation of the vessels, there will be an approach to congestion. The immediate effect of cold, therefore, is contraction, and with reaction comes dilatation; but the reverse is true of heat, which causes at first dilatation, followed, however, by contraction."

The Prolonged use of Hot Water is the Best Means for Relieving both the Congestion and the Loss of Tonicity Resulting therefrom.—"With these practical points before us, we resort to the prolonged use of hot water, by vaginal injections, to gradually bring about the required contraction and tone of the pelvic vessels. Whenever inflammation exists we have congestion of the arterial capillaries, and when it subsides there remains, among other results, the condition erroneously termed chronic inflammation; a condition essentially the same as the one just described, attended with a loss of tone in the vessels and an obstructed circulation, but it is a misnomer, since it is generally found where no previous inflammation has existed. The usual seat of the inflammation, and the circumstances under which it is generally found, have been already stated, as well as the fact that the condition we have chiefly to deal with is the direct result of a loss of tone in the venous circulation throughout the pelvis.

"The use of hot water vaginal injections is equally beneficial in all those conditions which constitute the various forms of disease in the female organs of generation, and which are amenable to any treatment other than a surgical procedure; and equally so, whether the congestion be venous or arterial.

The Application of Hot Water a Valuable Adjunct, not a Cure-all.—"This remedy is not to be considered a 'cure-all,'

but one of the most valuable adjuvants, under all circumstances, to other means. Yet, so beneficial is its use, except in displacements of the uterus, that I believe more can be accomplished in the treatment of the diseases of women by this agent, and a carefully regulated plan of general treatment, than by all other means combined.

"If a vaginal injection has been properly administered, the mucous membrane will be found blanched in appearance, and the usual size of the canal lessened in calibre, as after the use of a strong astringent injection.

The Advantages of the Application of Hot Water, the Patient being in a Recumbent position, with the Hips Elevated.—"As the patient lies on the back, with her hips elevated, the action of gravity will be brought into play, by which the veins will be rapidly emptied, sufficiently to relieve the over-distention. When in this position, also, the vagina will become fully distended by the weight of the water, and kept so, since only the surplus amount can run off into the bed-pan beneath. The hot water will then be in contact with every portion of the mucous membrane under which the capillaries lie. The vessels going to and from the cervix and body of the uterus pass along the sulcus on each side of the vagina, and their branches inclose the vagina in a complete network. The vessels of the fundus, through the veins of which the blood flows to the liver, and back into the general circulation, communicate freely, by anastomosis, with the vessels distributed to the body and cervix below. If, then, we are able to cause the vessels of the vagina to contract, through the stimulus of the hot water, we can, directly or indirectly, influence the whole pelvic circulation.

"It is most important to appreciate the necessity for elevating the hips, by which plan so large a portion of the venous blood becomes drawn off by gravitation. If the stimulus of the hot water is then applied, so as to cause the vessels to contract still more, we will, for a time at least, have the pelvic circulation reduced almost to a natural condition.

"In order to allow the condition of contraction to be as prolonged as possible, I generally direct the injection to be given at night, in bed, just as the patient is ready to retire.

"Thus, by constantly causing these vessels to contract, and by resorting to every other means of lessening the supply of blood to the pelvis, we will succeed eventually in securing a proper vascular tone. No plan of treatment could be more rational or appeal more forcibly to the good judgment of every one. But, unfortunately, from a neglect of details, it is rare that the slightest benefit is derived from the use of these injections, although so many years have elapsed since the profession has been fully informed as to their mode of action.

"For fifteen years at least, I have been experimenting by different methods in the use of hot water, and have had during that time as large a number of cases as would be likely to be at the service of any one, and I have arrived at the conclusion that it is an impossibility for a patient to properly give these injections to herself, so as to derive their full benefit.

"Not the slightest advantage is received from them when administered with the patient in an upright position, or, as is the usual method, while seated over a bidet, for, given thus, the water does not dilate the passage, but returns along the nozzle of the syringe.

"I have found that the best method of all is to have the injections given while the patient is placed on her knees and elbows or chest. In this position we have the assistance both of gravity and the pressure of the atmosphere to empty the pelvic veins, while the water is able to act on a much larger surface of the vagina than it is when the patient is in any other position. But this position is a difficult one to assume, since those who are in greatest need of hot water have not the strength to remain in it long enough to accomplish the purpose; and considerable difficulty is also experienced in keeping the patient dry.

"This latter difficulty, however, can in a measure be overcome by using a funnel-shaped receptacle, with an India-rubber tube attached to the smaller end, the two sides being indented sufficiently to enable the patient to retain it in place by keeping the thighs together.

"I have also used an inclined plane to elevate the hips; it should come up between the legs, and have a hole cut large enough for the buttocks, so that the water may flow into the receptacle below.

"These methods, or any other procedure which the ingenuity of the physician may suggest, can be employed, so ong as the action of gravity is brought into play, and the vagina can be dilated by the water. But for the largest number of cases, *the position on the back, with the bed-pan to elevate the hips*, will be found the most convenient.

"Few women are so situated as to be unable to get some one to administer the injections properly, and the inconvenience of soliciting aid is a trifling one considering the benefit to be derived from it, since experience has shown that, unless the details can be carried out fully the process only involves a waste of time and a tax on the strength of the patient.

The Proper Temperature and Quantity of Water to be Used.—"The temperature and quantity of water are to be varied according to circumstances. When treating the early stages of inflammation, it is necessary that the temperature should be elevated rapidly from that of blood-heat to 110 degrees, or to as high a degree as can be borne by the patient, and the injection should be often repeated.

"For ordinary use, a gallon of water two or three degrees above blood heat is generally sufficient, but the temperature must be maintained at the highest point by the addition of hot water from time to time.

"The hour of bed-time is generally the best in which to seek for the beneficial effects of hot water on the reflex system, in allaying the local irritation; for prolonged vaginal injection at a high temperature will often, when given by an experienced hand, act with more promptness than an anodyne in allaying the nervousness and sleeplessness of an hysterical woman. I have frequently known a patient, after being well rubbed, and having received an injection, to fall asleep before the nurse had completed the process, and to be so overcome with drowsiness as to be but little disturbed on removing the bed pan.

"In rare instances, and from a condition I am unable to explain, cases are met with where a sense of weight and an uncomfortable feeling are experienced about the pelvis after an injection of water at the usual temperature. In some instances so much disturbance resulted that occasionally I was obliged to abandon its use. But I have long since ascertained that the injection is well borne at a lower temperature, generally about 95 degrees, and that after a week or two the temperature can be generally increased.

"This 'cooking process,' as it has been facetiously termed, is rendered easier by the use of ivory or some other non-conducting material for the nozzle of the syringe, since the patient suffers more discomfort from the heated metal surface of the ordinary nozzle coming in contact with the outlet of the vagina than from any degree of heat in the water which it is advisible to employ. * * *

"As ths patient improves in health the quantity of water for the injections may be lessened, and the temperature gradually lowered to about 60 degrees, and then discontinued.

But for some months it would be prudent for a few days after each period to resume the injections at a degree or two above blood heat, and to have recourse to them whenever their use should seem indicated, to counteract the effect of some imprudence.

"To the injection (generally to the last pint) may be added *glycerine, chlorate of potash, chloride of sodium, carbonate of soda, borax, Castile soap, sulphate of copper, muriate of ammonia, brewer's yeast, permanganate of potassa, carbolic acid,* or any other remedy which may seem to be indicated."

Concluding Statements and Advantages offered by a Proposed New Form of Douche Apparatus.—In order to meet the varied requirements and exigencies of ordinary gynæcological practice, a properly-constructed douche should provide for,

First. The prolonged application of hot water, the patient being in a recumbent and easy position, with the hips slightly elevated.

Second. In cases of patients confined to bed, it must be easy of adjustment under the bed clothing, with no other change of position than the necessary elevation of the hips.

Third. It must not require the patient to be removed to the edge of the bed, with the feet supported externally thereto, thereby requiring unnecessary lifting, change of position, exposure of the limbs to cold, and the risk of aggravation after operations, or in cases of cellulitis or those involving acute or subacute inflammation.

Fourth. The instrument must be so constructed as to secure thorough and perfect application without liability to overflow or danger of wetting the clothing or bedding.

The proposed form of douche combines four principal qualities, none of which are furnished by any other instrument. These are :

First. Length of the inclined plane.

Second. Adjustibility of the inclined plane.

Third. Sufficient length and width of the bottom board to furnish adequate support.

Fourth. Combination and interchangeability of the receiver and bed-pan.

The advantages afforded by this apparatus may be described more in detail, as follows :

First. It provides for the free and prolonged application of hot water, the patient being in an easy recumbent position.

Second. Being constructed upon the principle of the inclined plane, it provides for the elevation of the hips above the level of the body, which degree of elevation can be increased or diminished as may be required by the exigencies of individual cases ; also at the same time,

Third. Affording sufficient length of the inclined plane to support the spine from the shoulders to the hips.

Fourth. Sufficient length and width of the foundation board to prevent settling into the bed, thereby avoiding liability to overflow of the receiver.

Fifth. The receiver can be readily removed, cleansed and replaced.

Sixth. Its construction is so simple that there is little liability to its getting out of order, leaking or wetting the clothing.

Seventh. The discharge pipe from the fountain is so small as to afford a continuous flow ten or fifteen minutes, the time being shorter the greater the elevation of the fountain ; which fountain, on being refilled, if need be, two or three times, provides for the constant application of hot water twenty or thirty minutes.

Eighth. The combination of bed-pan and receiver, being interchangeable at will, by means of a duplicate basin having no outlet, thereby affording a convenient adjustment for the purposes of a bed-pan.

MATERIA MEDICA.

REPORT ON DRUG PROVING.

Dr. H. M. Paine stated that it was his intention to have given the work of drug proving a considerable portion of time ; that his duties as Secretary, which he hoped Dr. Waldo would assume, had prevented.

He called attention to and read a circular-letter recently issued by Dr. A. A. Camp, of Michigan, in which the importance of more systematic and thorough organization of effort is strongly urged, and a plan having in view the concentration and continuation of work on a few drugs until completed, is earnestly recommended.

It is well known that numbers of imperfectly-proved drugs are offered for clinical trial, and that these fragmentary provings are often misleading and unsatisfactory.

If, through the plan proposed by Dr. Camp, or some other having for its object the attainment of the same object, a larger number of provers can be secured for single drugs, greater accuracy and completeness will be obtained, and the utility and value of the remedies will be proportionately increased.

Dr. Camp points out some of the obstacles to the work, and offers many practical suggestions. He states, that by correspondence he has ascertained that the same difficulties which he had found, his colleagues in other states were also endeavoring to surmount ; that the chairman of the committees on materia medica of the several State and local societies are seldom qualified for the work by requisite experience ; that when drugs are proved by the different State and local associations, the work is performed in an imperfect manner ; that remedies are thereby frequently offered for trial of which incomplete provings have been made, hence unreliable and erroneous indications for their use find a place in works on materia medica ; that in view of this unsatisfactory method, or rather a want of it, it is proposed to increase the number of provers, and at the same time secure greater uniformity and system by *co-operation* in the work ; he also suggests that the thirty or more committees of the various State, sectional and national medical societies in this country, shall unite under one system of management, thereby organizing themselves into a corps of between one and two hundred physicians, the results of the labors of which would be authoritative and practically useful.

The doctor concludes substantially as follows :

"It seems to me that a plan by which the work throughout the whole country can be systematized, and placed under the control of a competent central board, will accomplish far better results than are now possible by the go-as-you-please method at present pursued by the several State and local societies."

It is desirable that the membership of the Committee on Drug Proving of this Society be increased, and that united effort be made in pursuing original investigations in this department of medical research.

MISCELLANEOUS.

The President appointed the following a Committee on Drug Proving :

Dr. H. M. Paine, Albany, Albany county ; Dr. A. C. Hanor, Chatham, Columbia county ; Dr. A. C. Howland, Poughkeepsie, Dutchess county ; Dr. A. R. Green, Troy, Rensselaer county ; Dr. E. T. Horton, Whitehall, Washington county ; Dr. W. S. Garnsey, Gloversville, Fulton county ; Dr. I. W. Ferris, Schenectady, Schenectady county ; Dr. J. H. Wheeler, Pittsfield, Berkshire county, Mass.

The following were elected to active membership : Doctors D. B. Mosher, Granville ; I. W. Ferris, Schenectady ; F. S.

Bloss, Troy; A. R. Green, Troy; W. F. Robinson, Albany; N. E. Paine, Albany; J. H. Wheeler, Pittsfield, Mass.; W. B. Putnam, Hoosick Falls; W. E. Putnam, Hoosac.

A resolution expressing thanks to the authors of the several papers which had been presented, also to the proprietors of the American House for the use of a room, was unanimously adopted.

There were fifteen members and physicians present, representing the counties of Albany, Dutchess, Rensselaer, Saratoga, Schenectady, and Montgomery.

A desire was generally expressed that the members endeavor to secure a full attendance at the Summer meeting.

Adjourned to meet at Saratoga Springs, Wednesday, August 6th, 1884.

TRANSLATIONS, GLEANINGS, ETC.

IODOFORM IN VALVULAR DISEASES OF THE HEART.—The following article, abstracted from the *Wiener Med. Blatt*, may be of interest to your readers. From the recommendation of Molscholt, Professor Baldassare Testa (*Giornale di clinica e Terap.*) administered, in the year 1879, small doses of iodoform in two cases of mitral insufficiency, and from the favorable results he obtained in these cases he was lead to prove the action of small doses of this drug (30 bis. 60 crg.) on dogs. He obtained, after each administration of the drug, a reduction in the frequency of the heart's pulsations, and at the same time a more powerful pulse, with increased arterial pressure. This result was confirmed by Rumno in Paris, but only from the administration of doses of 1 gr., which according to the author is sufficient to produce weakness of the heart's action, with a reduction of the arterial pressure. From these results the applied small doses (7 grs. made into four pills, a pill taken every four hours during the day) of this drug in valvular diseases of the heart, and reports five cases when this drug exercised a very beneficial action on the dependent functional disturbances. He found it most beneficial in cases of aortic stenosis with insufficiency during the stage of compensating hypertrophy, and in case of mitral insufficiency with irregular heart's action and pulmonary congestion. He considers the functional disturbances in valvular diseases of the heart as due to congestion in the venous circulation, and a correspoding anæmia in the arterial, and that the heart is not able to equalize this disturbance. He explains the beneficial action of iodoform as dependent on its power to lengthen the interval of rest in the heart's action, and a correspondingly more powerful systolic contraction, and therefrom resulting greater diastolic relaxation of the heart's muscular structure. Presupposing that the heart's muscular structure is not diseased, and that organic changes in other organs are not present, the author draws the conclusion that iodoform equalizes the circulation in valvular diseases of the heart, by propelling the blood into the arterial system with greater force, and by facilitating its return to the heart.

JNO. L. DANIELS.

DIGITALIS AS AN ANAPHRODISIAC.—According to Dr. N. L. Folsom (*Medical World*, April, 1884), the *tincture of digitalis*, in teaspoonful doses, three times a day, manifests a most surprising effect in both removing the excessive desire for copulation, and disabling from the act. He prescribes it in insanity caused by self-abuse. It is said to produce permanent impotency if long taken.

TO ABORT A STYE.—Dr. Louis Fitzpatrick writes to the *Lancet*, that he has never seen the following treatment fail: Hold the lids apart while the *tincture of iodine* is painted over the inflamed papilla with a fine camel's hair pencil. The lids should not be allowed to come in contact until the part touched is dry. A few such applications in the twenty-four hours suffice.—*American Druggist*, March, 1884.

THE MEDULLA OBLONGATA IN ITS RELATIONS WITH SEXUAL DISORDER.

BLOOD-LETTING.

THE medulla oblongata, which forms the bond of union between the brain and spinal marrow, has been called by Flourens and his school the *nodus vitæ*, the middle point, or the centre of the nervous system, the "central nervous system," described by Michael Foster as "that as yet almost unknown territory." Treating of its general anatomy, Erb asserts that "many points, and these perhaps the most important, are still unsettled; of its internal structure very little is known with certainty and accepted by all, and the few facts of this nature may be well described as landmarks in an unknown region. The physiology of the medulla oblongata is just as imperfect and obscure as its anatomy, so that we have not become possessed of any undisputed information on the most elementary and important facts. We know nothing, for instance, of the conduction of sensory impressions, or of the exact position of the chief centres.

While the existence of centres in the medulla oblongata for reflex functions, for cardio-inhibitory, for respiratory, for convulsive and other centres, is universally recognized, their relative positions are but matters of conjecture. They have no lines of demarcation; on the contrary, they often meet at many points, and, so to speak, overlap one another.

Although its existence has not so far been demonstrated, I am satisfied that a centre for the genital or reproductive functions may be logically inferred to exist in the medulla oblongata. On this point Van der Kolk writes: "The close relation between the medulla oblongata and the action of the genital organs is generally received by physiologists. Let it suffice to call to mind the occurrence of erection and emission of persons hanged, how the sexual action is exalted in idiopathic mania with irritation of the brain and medulla oblongata, how frequently after injuries of this part erection and emission, or perhaps impotence, is observed." That the proximate cause of epileptic convulsion lies in the pons and medulla oblongata has been abundantly established.

In the etiology of epilepsy and a large class of allied neuroses and neuropathic disorders, sexual excesses hold a prominent place, and that they stand in causal relation to many spinal diseases is attested by Romberg, Nasse, Salmon, Rosenthal and Erb.

Passing over, for the present, the other items in the neuropathic group, I think it will not be difficult to demonstrate the existence of a mutual causal relation between a congested condition of the medulla oblongata and that disease denominated "neurasthenia spinalis," and also that of "abnormal seminal losses." That this mutual causal relation is in operation we may satisfy ourselves by reviewing the order observed in the phenomena under considerstion. How at one time the lower sexual centre situated in the lumbar plexus, stimulated by peripheral irritation of the organs, reacts upon the higher centre in the medulla oblongata; at another the higher centre originates the force and evokes the functions of the lower centre, which, in their turn, often independently of the will, and while the patient sleeps, or in those passive, diurnal involuntary emissions beyond the control of the sufferer, are in

over-frequent activity, in the neuropathic constitution. There is thus established a vicious circle of cause and effect, the repeated excitement of the medulla through too frequent irritation of the peripheral ends of the sensory spinal nerves, or by excessive sensual gratification, induces a state of chronic congestion in the organ whose function is to receive these impressions—the medulla itself; and the overcharged organ, yielding to abnormally slight impulses, mental or otherwise, so to speak, explodes and causes in the genital organs the evolution of the ordinary phase of the sexual orgasm. It is thus, too, that nocturnal emissions are so readily induced by lying on the back; the already hyperæmic condition of the bulb is increased by an additional afflux of blood due to gravitation in the supine position; the ganglia, so numerous in the medulla, thus excited to action, discharge themselves upon the lower centres, which react on the generative organs, and thus these involuntary discharges take place.

My note-book is replete with examples of neuropathic ailments successfully treated by the application of cupping-glasses, wet, to the nape of the neck, abstracting about two ounces of blood, followed sometimes by the cold douche on the same region, with the use of *bromide of pot.* and *belladonna* in regulated doses. Immediate relief has always been afforded and a complete cure effected within a few weeks, by this simple agency, after the failure of other remedies. In milder cases, before proceeding to wet cupping, which in every case is not convenient to adopt, I try the effects of dry cupping, frequently repeated, or of a blister, "nuchæ collis."

The salutary influence of this topical remedy was evidenced in a striking manner, in the restoration of the power of the will in several cases where the victim of spermatorrhœa was also a masturbator; it was one of the results for which the patient was most grateful, being thus enabled to resist successfully the odious temptation. The natural inference from the success of this plan is, that masturbation or onanism is not in itself merely a symptom but a distinct form of disease and amenable to treatment on proper symptoms.

The ordinary treatment of this neurosis is governed by two main ideas, the first aims at ease by invoking the aid of the moral sentiments and the centres of volition in the cerebrum, the other relies on remedies mechanical or otherwise in the direction of the peripheral nerves and the secretory and excretory organs of generation themselves.

The advocates of the first plan advise the sufferer to give up the habit of masturbation, to be cheerful, take plenty of exercise, lie on a hard bed, to apply cold water to the genitals, and other hygienic plans. In the first place, the local application of cold acts not as a sedative but as an excitant, but how is the influence of the will to be invoked in sleep, when consciousness is in abeyance and sexual instinct in the ascendant; or what controlling power is centred in the will sufficient to prevent those diurnal pollutions perfectly automatic in their nature for the most part, and in direct opposition to the enfeebled will of the sufferer, who so much in this respect resembles the insane; and however anxious to give up the loathsome habit, yet is dominated by a morbid impulse whose nature he fully recognizes, and deplores his inability to resist.

The followers of Lallemand, the votaries of local and mechanical surgical treatment, equally misled by a false pathology, have committed most egregious errors in the name of science. That otherwise able man was too much influenced by local considerations; for having, in one instance, discovered by post-mortem examination the existence of a chronic inflammatory state of the neck of the bladder and mucous membrane adjoining the orifices of the ejaculatory ducts, he imagined that he recognized this pathological condition in every case, and therefore usually employed the one-sided treatment, viz., cauterization of the caput gallaginis; this method, however suitable for the cure of prostatic discharge or that from Cowper's glands, was quite useless in the treatment of seminal emissions. Lallemand blundered in mistaking an outpost for the citadel, and in expending all the resources of his art upon the periphery rather than the higher centres, the headquarters of the sexual system. Equally objectionable, or even more so, are those later expedients, the constant use of the urethral bougie, the ligature of the spermatic arteries, and the indefensible operation of castration as performed in America. This heroic procedure has had its counterpart in the abominable mutilation, the actual cautery, and the clitoridectomy of poor women afflicted with aggravated attacks of hysteria; these import into civilized life the barbarities of Abyssinian savages, in the vain hope, by destroying the passive exponent of excitement in the higher centres, to stifle the sexual instinct at its source.—ALEXANDER HARKIN, in *Practitioner*, Feb., 1884.

THE differentiation of benign and malignant diseases, with their characteristics, is presented as follows by Dr. E. C. Franklin, in the St. Louis *Periscope*, January, 1884:

BENIGN TUMORS.	MALIGNANT TUMORS.
Have no constitutional dyscrasia.	Have constitutional and hereditary predisposition.
Are not closely connected to the adjacent structures.	Are infiltrated into the surrounding structures in mass.
Tumors grow slowly as a rule.	Tumors grow rapidly when fully developed.
Are frequently multiple, advance equally, and affect the same type of tissues.	Are solitary, and only multiply by infection; affect different types of tissue.
Are stationary for some time—when developed, grow slowly.	Grow fast when fully developed, and extend in all directions.
No tendency to ulceration.	Marked tendency to ulceration.
Rarely accompanied by offensive discharges.	Very offensive, with bloody and ichorous discharges.
Adjoining structures healthy or thickened by inflammatory process.	Adjoining structures are infiltrated and changed from their normal condition.
Absence of hemorrhage.	Liable to profuse hemorrhage.
The growth is homologous and homomorphous, and of the same nature as like tissues of the body.	Growth is heterologous and heteromorphous, dissimilar from natural tissue.
No constitutional defects are developed in any of its stages; when reproduced is in variety.	Constitution gives evidence of contamination, especially in advanced stages; is rarely reproduced in variety.
Ulcers heal readily, and growth decreases with ulceration.	Ulcers have no tendency to heal, and no reparative process takes place; disease increases with ulceration.

SCARS—TO OBVIATE.—The Boston *Journal of Chemistry* states that the following mixture, placed upon a granulation surface, will prevent the scars from appearing at all unsightly, and, in fact, at times prevent them from being noticeable. Take of *borax* an ounce and a half, of *salicylic acid* twelve grains, *glycerine* three drachms, *rose water* six ounces. Make a solution.

JABORANDI IN BRIGHT'S DISEASE.—Dr. F. A. O'Brien, of Atlanta, Ga., in the *Medical Record*, March 22, 1884, calls attention to the beneficial action of *jaborandi*, given in small or moderate doses for a long time, in the various forms of albuminuria classed under the head of Bright's disease. He believes that it has a specific influence on the kidneys, permitting the tubules to relieve themselves of the inflammatory products that block up their lumina.

ANALYSIS OF CONDENSED MILK.—Prof. Fresenius found a sample of Swiss unsweetened condensed milk to contain the following constituents:

Butter	10.87
Albumen	1.27
Casein	10.65
Milk Sugar	14.26
Inorganic substances	2.36
Total solids	39.41
Water	60.59
	100.00

The factory where this milk is condensed is very particular in not allowing the milk to be handled or touched after it is received. All the operations are conducted in pans thoroughly scoured with sand and hot water, and afterwards submitted to the action of high-pressure steam. There is no addition of any preservative except an extremely small proportion of *borax*, amounting to perhaps 0.2 grains per gallon of original milk, the keeping properties of the condensed milk being mainly dependent upon three things:

1. Extreme cleanliness.
2. Heating the milk to a very considerable temperature *after* condensation.
3. Careful packing and soldering in air-tight tin cans.

The inorganic constituents were found to be the following:

(Fresenius)	In 100 parts.
Borax	26.69
Soda	10.85
Lime	23.01
Magnesia	2.41
Oxide of Iron	traces
Phosphoric acid	28.35
Sulphuric acid	2.08
Chlorine	8.56
	101.95
Less oxygen	1.95
	100.00

—*American Druggist*, April, 1884.

THE MOBILITY OF THE BRAIN.—It has long been known that the brain in normal conditions undergoes certain rhythmical movements. The powerful vessels at its base cause the cerebral mass to rise and fall with each systole and diastole of the heart. The brain also rises slightly with each expiration and sinks with inspiration. These phenomena are dependent, it is presumed, upon the presence of the cerebro-spinal fluid, since when that is withdrawn the movements cease.

M. Luys, in a paper recently read before the Academie de Médecine, states that the brain is subject to still other changes in position, dependent upon the attitude of the body. If a man is in the dorsal decubitus, or lies upon his side, or stands upon his head, the brain undergoes certain corresponding changes in position in obedience to the laws of gravity. The movements take place slowly, and the brain is five or six minutes in returning to its first position.

From these anatomical data M. Luys deduces some striking conclusions of practical interest. He explains, upon the theory of these gravitating movements, the symptoms of vertigo and faintness which feeble persons experience upon suddenly rising from a horizontal position. He asks if the pains of meningitis are not due to an interference with these normal movements. In cases of insanity he calls attention to the excitability and agitation which often come on when the patient lies down at night. As a practical point in medical hygiene, M. Luys advised against prolonged travel during most of the day, and urged the value of giving the brain the change produced by a horizontal position at night.

INFANT FEEDING.—Prof. Parrot, in a series of lectures on "Infant Feeding," reported in *Le Journal Médical* (*Southern Medical Record*), demonstrates the importance and utility which should be ascribed to the fatty gland of Bichat. This gland constitutes an oblique mass, slightly stretched at its extremities, situated at the junction of the anterior two-thirds with the posterior third of the buccal parietes. It is easily distinguishable from the surrounding fatty tissue. Its size, after increasing up to the second or third year, gradually diminishes, and it even changes its position. It appears certain that, in the nursing infant, when this organ has become atrophied under the influence of great emaciation, the act of sucking is rendered extremely difficult thereby.

The normal situation of the stomach in a child is very interesting to consider with respect to its functions. While in man its axis is almost horizontal, it is nearly vertical in the infant, which is due to the organ not being yet fully developed. Hence, if the child be held vertically the food accumulates within the greater curvature; yet it passes easily through the pylorus. If the child be held lying on its left side, this situation is particularly favorable for stomachal digestion, for the food is thereby retained longer in the viscus before reaching the pylorus. If, on the contrary, the child be held on its right side, the food passes almost instantly into the intestines.

Dorsal recumbence, with head slightly backwards, is very favorable to regurgitation, and this position more than any other is likely to produce asphyxia through the introduction of food into the trachea, so that with children who are subject to regurgitation, it should be deemed imperative to hold them for some time after being breast or bottle fed, in a vertical position, in order to allow the food to pass rapidly into the intestines.

OVERCOMING ANTIPATHY TOWARDS CHLOROFORM.—Some patients have a particular antipathy against the odor of *chloroform*, and begin to struggle when about to be placed under its influence. To overcome it, Prof. Nussbaum, of Munich, recommends to put ten or twelve drops of *oil of cloves* upon the towel, or other apparatus used in administering the *chloroform*.—*Deutsch Med. Zeit.* (*The American Druggist*).

SWEATING FEET.—M. Viensse, principal medical officer of the Medical Hospital at Oran, states that excessive sweating of the feet is quickly cured by carefully conducted friction with the *subnitrate of bismuth*, without any ill consequences following the suppression of the sweating.—*American Druggist*, March, 1884.

RUMINATION AMONG THE INSANE.—Dr. Bouchard read a paper at the Society of Medical Sciences of Lille, on the rumination which, known as a pathological rarity, is in reality very frequent, especially in insane asylums. There are fourteen ruminating patients in the asylum of Lommelet; eleven among 100 idiots, and three among 576 patients. Many of these patients ruminate before presenting any symptoms of insanity; therefore this symptom might have a grave diagnostic significance.

A NEW INSECTICIDE.—The *aqueous or acetic acid* infusion of the flowers of delphinium ajacis is used as an insecticide. It is distinguished from other agents of the kind by its extreme clearness and its lack of odor. In many respects this remedy shows a great resemblance to *carbolic acid* and to *iodoform*.

MISCELLANY.

—Dr. George B. Cornell, 55 Monticello avenue, Jersey City, desires to sell his practice.

—Dr. Strong reports 811 patients treated at the W. I. Hospital for June, with a death-rate of 2.22 per cent.

—Cholera, its treatment and prevention, will be published in August by the A. L. Chatterton Pub. Co., price $1.

—American gynæcologists are divided by a London cynic into two classes: 1. Those who slit the cervix. 2. Those who sew it up.

—Female vaccinators have been introduced in Madras, so as to evade the prejudice against native women being treated by medical men.

—The published report of an English benevolent society says: "Notwithstanding the large amount paid for medicine and medical attendance, very few deaths occurred during the year."

—*Lady Scientists.*—It is a sign of the times, that a paper by a young lady, "on the Blastopore of the Newt," was read at the last meeting of the Royal Society, the writer herself being present.

—We have to congratulate and extend best wishes to our friends, Dr. A. P. Williamson, who was married on June 3d, to Miss Cornelia Cotrell; and Dr. J. H. McClelland, who was married June 26th, to Miss Rachael May Pears.

—If readers of the medical journals that have the abominable habit of interleaving their "ads." with the reading matter, will at once on discovery, tear out and distroy the intruder, without inspection, as many do, it may help to put a stop to the offensive practice.

—M. Pasteur has been furnished with an opportunity of testing his theories concerning rabies upon a human subject. One of the servants of the Paris and Lyons Railway at Tarascon-sur-Rhone, having been bitten by an undoubtedly mad dog, has just placed himself in the hands of the illustrious savant.

—It is not safe to practice without a diploma in Colorado. In a small town near Denver, Eli Madlong, practicing as a physician, but without any diploma, prescribed some medicine for a patient who died; whereupon, says the *Chicago Medical Review*, the indignant friends of the diseased hanged the venturesome practitioner by the neck until he was as dead as his unfortunate patient.

—The Twilight Club of this city, as reported by the *Sanitary Engineer*, composed of professional and business men, gave a dinner in conjuction with the Canned Goods Committee of the New York Mercantile Exchange, with a bill of fare composed exclusively of canned goods, and containing no less than fifty dishes. They included clams, oysters, a variety of fish, soups, salads, poultry, beef, tongue, ham, and a variety of vegetables, fruits, and puddings. At the close of the dinner F. A. Barrett, editor of the *American Grocer*, gave a history of the canning business which now amounts to 600,000,000 cans per annum. He was followed by Dr. Bartley, of the Brooklyn Board of Health, and James C. Bayles, editor of the *Metal Worker*, both of whom discussed the alleged poisonous character of canned goods. Dr. A. N. Bell claimed that in cases where harm had followed it was caused by the contents having been rendered hurtful after the package was opened, and through carelessness in keeping the cans in unclean places. In conclusion the chairman showed how the development of the canning industry contributed to the comfort of mankind and the progress of civilization.

—The next meeting of the American Public Health Association will be held in St. Louis, Mo., Oct. 14–17.

—The recent death in this city from the bite of a rattlesnake, causes regret that the plantago major was not tried, as it was so successfully before a commission of medical men in Philadelphia, some years ago. In the latter case, a man voluntarily, for a money consideration, allowed himself to be bitten for the purpose of proving the value of the plantago, and the result was satisfactory.

—Dr. L. B. Couch, of Nyack-on-Hudson, has been experimenting with the exfoliated epidermis of the third stage of scarlet fever as a prophylactic in this affection. His plan is to take three grains of the scales, macerate them twenty-four hour, with frequent shaking, in one ounce of distilled water, then filter and add four ounces of distilled water and two drams of alcohol. Three drops in a teaspoonful of water and administered four times a day.

—The mistaken diagnosis in the case of the late Dr. C. A. Taft, of Hartford, Conn., shows how prone even the most eminent are to error. These specialists who claimed that the doctor had but one lung, were very much astonished to find, *post-mortem*, that he not only had *two*, but both were in the most perfect condition! The cause of death was inanition, due to induration consequent upon chronic gastro-intestinal catarrh, brought about, it is surmised, by the excessive use of alcoholic stimulants, prescribed under a mistaken diagnosis, and with aview to the building up of the lung tissue, of which he already had his normal amount.

—London papers complain of a decided falling off in the flood of charity. The authorities of many of the hospitals are of opinion that the institution of Hospital Sunday, instead of confering great benefits upon these charities, has had an exactly opposite effect. It was hoped by the promoters of the scheme that it would enable vast numbers of people who could not afford to subscribe their five pounds a year to give what they could, and so to supplement very largely the income of the hospitals. This has not proved to be the case. Since the foundation of the annual collection in churches, the subscription lists of the various hospitals have fallen off considerably, and the deficiency has been much greater than the amount collected in the churches. The *Lancet* calculates that not less than £50,000 is required to ease the deficit incurred this year in the London hospitals, and says that out of a total of 7,902 beds, no fewer than 2,000 stand empty, owing to a want of funds.

—A young girl is at present performing feats of strength in this city, which are described by some as quite beyond the muscular power of even an athlete. This is not the first instance in which this *nerve force*—for that is what it seems to be—has been developed in a *young girl*. In a similar case which occurred in France some years ago it was found "that if the girl was cut off from contat with the earth, either by placing her feet on a non-conductor or merely keeping them raised from the ground, the power ceased, and she could remain seated quietly." While this state of things is nevertheless phenomenal, the results of investigation remove it from the pale of the mysterious to the field of science.

Physiologists have long since demonstrated the resemblance of nerve-force to that of electricity, and the circumstance of so wonderful a development as is found in the Hurst girl, should not be lost to science by allowing her power to be frittered away for the amusement of the unthinking multitude, the majority of whom will attribute the manifestation to erroneous causes.